

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:13:24 ON 10 MAR 2006

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(FILE 'HOME' ENTERED AT 13:49:42 ON 10 MAR 2006)

FILE 'HCAPLUS' ENTERED AT 13:54:24 ON 10 MAR 2006

E US20050252411/PN

L1 1 SEA US2005252411/PN
D TI
D IALL
SEL RN

FILE 'REGISTRY' ENTERED AT 13:55:38 ON 10 MAR 2006

L2 3 SEA (514-10-3/BI OR 54060-92-3/BI OR 68134-38-3/BI)
D SCA
L3 STR 68134-38-3
L4 37 SEA SSS SAM L3
D L4 QUE STAT
L5 STR L3
L6 34 SEA SSS SAM L5
L7 746 SEA SSS FUL L5
SAV L7 KLE240/A
L8 1 SEA 514-10-3/RN
D STR
L9 163 SEA 514-10-3/CRN

FILE 'HCAPLUS' ENTERED AT 14:30:59 ON 10 MAR 2006

L10 349 SEA L7
L11 218 SEA L8/D
L12 30 SEA L8/DP
L13 2432 SEA L8
L14 679 SEA L9
L15 1 SEA L10 AND L11
L16 0 SEA L10 AND L12
L17 1 SEA L10 AND L13
L18 0 SEA L10 AND L14
L19 1 SEA L1 OR L15 OR L17
L20 138166 SEA (ORG# OR ORGANIC OR RESIN?) (3A)ACID#
L21 3904 SEA ABIETIC(A)ACID#
L22 9 SEA L10 AND L20

L23 1 SEA L10 AND L21
L24 85722 SEA CATION? (2A) EXCHANG?

FILE 'REGISTRY' ENTERED AT 14:55:00 ON 10 MAR 2006
L25 1590 SEA ROSIN#
E POLYACRYLIC ACID/CN
E ACRYLIC ACID, HOMOPOLYMER/CN
E ACRYLIC ACID, POLYMER/CN
E POLYPROPENOIC ACID/CN

FILE 'HCAPLUS' ENTERED AT 14:57:36 ON 10 MAR 2006
L26 13890 SEA POLYACRYLIC(A)ACID#

FILE 'REGISTRY' ENTERED AT 14:58:27 ON 10 MAR 2006
L27 1 SEA 9003-01-4
E POLYMETHACRYLIC ACID/CN

FILE 'HCAPLUS' ENTERED AT 14:59:28 ON 10 MAR 2006
L28 3476 SEA POLYMETHACRYLIC(A)ACID#

FILE 'REGISTRY' ENTERED AT 15:00:14 ON 10 MAR 2006
L29 1 SEA 25087-26-7

FILE 'HCAPLUS' ENTERED AT 15:00:29 ON 10 MAR 2006
L30 30594 SEA L25 OR ROSIN#
L31 18943 SEA L27
L32 6206 SEA L29
L33 2208 SEA COLOPHON?
L34 4 SEA L10 AND L30
L35 7 SEA L10 AND (L31 OR L26)
L36 1 SEA L10 AND (L32 OR L28)
L37 0 SEA L10 AND L33
L38 1 SEA L10 AND L24
L39 48 SEA L10 AND INK?
L40 58 SEA L10 AND PRINT?
L41 36 SEA L39 AND L40
L42 18 SEA L19 OR L22 OR L23 OR L34 OR L35 OR L36 OR L38
L43 31 SEA L41 NOT L42
L44 15 SEA L42 AND (1860-2002/PY OR 1860-2002/PRY)
L45 31 SEA L43 AND (1860-2002/PY OR 1860-2002/PRY)

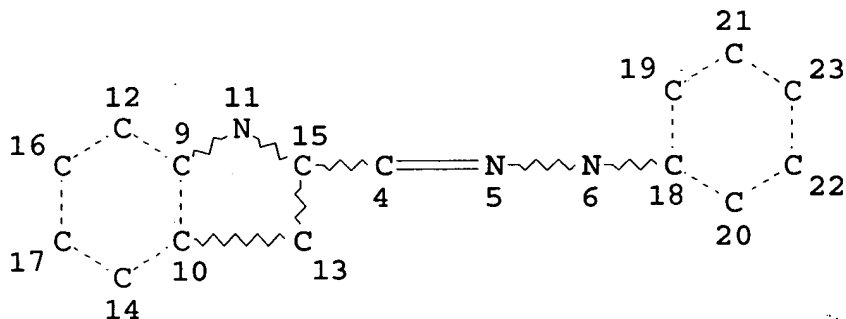
FILE 'REGISTRY' ENTERED AT 15:09:59 ON 10 MAR 2006
L46 2 SEA L2 AND L7

FILE 'HCAPLUS' ENTERED AT 15:10:30 ON 10 MAR 2006

L47 144 SEA L46
L48 11 SEA L47 AND L45

FILE 'REGISTRY' ENTERED AT 15:13:24 ON 10 MAR 2006

=> d 17 que stat
L5 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 18

STEREO ATTRIBUTES: NONE
L7 746 SEA FILE=REGISTRY SSS FUL L5

100.0% PROCESSED 1939 ITERATIONS
SEARCH TIME: 00.00.01

746 ANSWERS

=> fil hcap
FILE 'HCAPLUS' ENTERED AT 15:13:45 ON 10 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> d 144 ibib abs hitstr hitind 1-15

L44 ANSWER 1 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

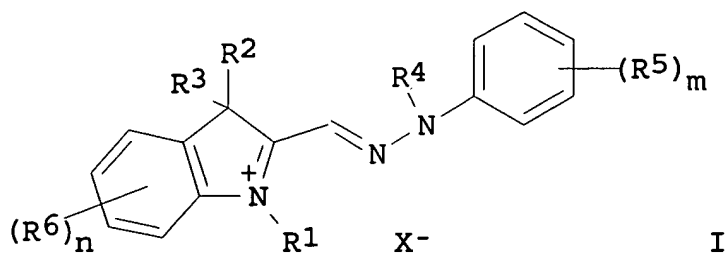
ACCESSION NUMBER: 2004:120918 HCAPLUS *The current Application*
DOCUMENT NUMBER: 140:165575
TITLE: Organic solvent-based printing ink compositions
containing cationic dyes
INVENTOR(S): Fraser, Iain Frank; Niven, Stuart Cook; Wilcox,
Joyce
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 33 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004013237	A1	20040212	WO 2003-EP7772	200307 17
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2483842	AA	20040212	CA 2003-2483842	200307 17
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AU 2003250087	A1	20040223	AU 2003-250087	200307 17
<--				
EP 1525273	A1	20050427	EP 2003-766205	200307 17
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

BR 2003012966	A	20050614	BR 2003-12966	200307 17
			<--	
CN 1671809	A	20050921	CN 2003-817843	200307 17
			<--	
JP 2005533915	T2	20051110	JP 2004-525234	200307 17
			<--	
US 2005252411	A1	20051117	US 2005-523240	200501 19
			<--	
PRIORITY APPLN. INFO.:			EP 2002-405651	A 200207 26
			<--	
			WO 2003-EP7772	W 200307 17

OTHER SOURCE(S): MARPAT 140:165575
GI



AB The ink compn. comprises (1) a cationic indole-type dyestuff I (R1-6 = H, (un)substituted alkyl, alkoxy, cycloalkyl, aryl, heteroaryl, allyl, or combined together to form ring; m = 1-5; n = 1-4; X- = org. anion), (2) an org. solvent, (3) an **org. resin**

acid or its salt sol. in the org. solvent, and (4) optionally, a pigment. The cationic dyestuff is formed (in situ) from its carbinol precursor. The compns. show high color strength and good rheol. properties and are used in publication or packaging gravure flexog., lithog. or letterpress printing processes. Thus, 20 parts dye toluene soln. contg. 11.2/4.5 tall oil **rosin** and 4.5 carbinol-base C.I. Basic Yellow 29 was mixed with 80 parts 50% toluene soln. of **rosin** modified phenolic resin to give a printing ink showing high color strength, good gloss and transparency.

IT 514-10-3D, **Abietic acid**, polymd.

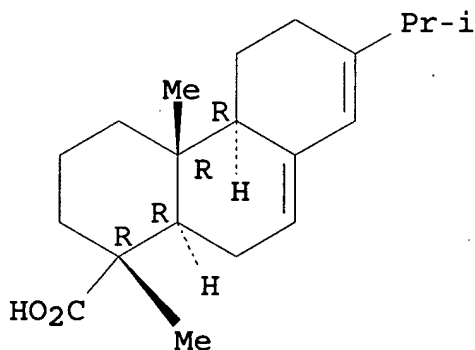
54060-92-3, C.I. Basic Yellow 28 68134-38-3, C.I. Basic Yellow 29

RL: TEM (Technical or engineered material use); USES (Uses) (org. solvent-based printing ink compns. contg. cationic dyes)

RN 514-10-3 HCAPLUS

CN 1-Phenanthrenecarboxylic acid, 1,2,3,4,4a,4b,5,6,10,10a-decahydro-1,4a-dimethyl-7-(1-methylethyl)-, (1R,4aR,4bR,10aR) - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



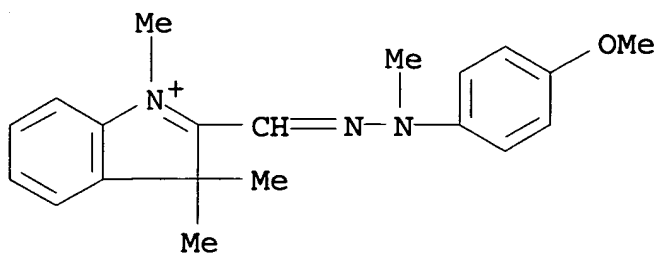
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

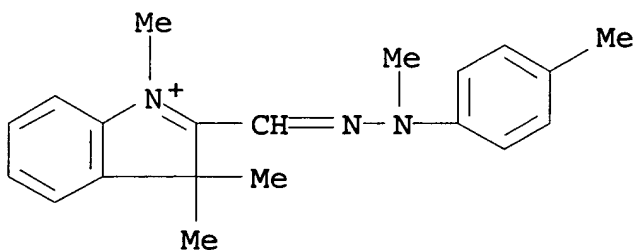
CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

RN 68134-38-3 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, chloride (9CI) (CA INDEX NAME)

● Cl⁻

IC ICM C09D011-02

CC 42-12 (Coatings, Inks, and Related Products)

IT Rosin

RL: TEM (Technical or engineered material use); USES (Uses)
 (dimerized; org. solvent-based printing ink compns. contg.
 cationic dyes)

IT Rosin

- RL: TEM (Technical or engineered material use); USES (Uses)
(disproportionated; org. solvent-based printing ink compns.
contg. cationic dyes)
- IT **Rosin**
RL: TEM (Technical or engineered material use); USES (Uses)
(hydrogenated; org. solvent-based printing ink compns. contg.
cationic dyes)
- IT **Rosin**
RL: TEM (Technical or engineered material use); USES (Uses)
(maleated; org. solvent-based printing ink compns. contg.
cationic dyes)
- IT **Resin acids**
Rosin
Tall oil **rosin**
RL: TEM (Technical or engineered material use); USES (Uses)
(org. solvent-based printing ink compns. contg.
cationic dyes)
- IT **Rosin**
RL: TEM (Technical or engineered material use); USES (Uses)
(polymd.; org. solvent-based printing ink compns. contg. cationic
dyes)
- IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(rosin-modified; org. solvent-based printing ink
compns. contg. cationic dyes)
- IT **514-10-3D, Abietic acid, polymd.**
54060-92-3, C.I. Basic Yellow 28 68134-38-3, C.I.
Basic Yellow 29
RL: TEM (Technical or engineered material use); USES (Uses)
(org. solvent-based printing ink compns. contg.
cationic dyes)

L44 ANSWER 2 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:492076 HCAPLUS
DOCUMENT NUMBER: 140:201128
TITLE: Indicating paint compositions for detection of
leaks of toxic organophosphorus compounds from
containers
INVENTOR(S): Kuznetsov, N. A.; Mokhov, A. N.; Farmakovskaya,
T. A.
PATENT ASSIGNEE(S): Federal'noe Gosudarstvennoe Unitarnoe
Predpriyatie "Gosudarstvennyi
Nauchno-Issledovatel'skii Institut Organicheskoi
Khimii i Tekhnologii", Russia
SOURCE: Russ., No pp. given

DOCUMENT TYPE: CODEN: RUXXE7
LANGUAGE: Patent
FAMILY ACC. NUM. COUNT: Russian 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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RU 2202580	C2	20030420	RU 2000-132849	200012 28
			<-- RU 2000-132849	200012 28

AB An indicating paint compn. for detection of leaks of toxic organophosphorus compds. from containers comprises an indicating agent (0.4-1.4), a binder, pigments and fillers (14-30), carbon black (0.03-0.07), and a solvent, the indicating agent being a tungstophosphate of a basic dye, the binder being a mixt. of a chlorovinyl resin (10-18) and a low mol. wt. polymer (2-7), the solvent being an arom. hydrocarbon or a mixt. of an alkyl acetate (0-11) with an arom. hydrocarbon (to 100%). The compn. may be applied onto the surface of metallic containers charged with organophosphorus chem. warfare agents, such as sarin, soman, tabun and VX-type agents. The compns. provide water-resistant and solvent-resistant anticorrosive coatings and indicate leaks of toxic organophosphorus compds. stored in containers for prolonged time. Thus, a paint compn. suitable for detection of sarin, soman, tabun and their analogs was produced by mixing a perchlorovinyl resin (12.9), an ester of glycerol and **rosin** (6.4), basic fuchsine tungstophosphate (0.6), lithopone (18), barium sulfate (8.3), lead chrome yellow (1), chromium oxide (1.2), carbon black (0.03), and xylene (to 100%).

IT 662134-96-5

RL: MOA (Modifier or additive use); USES (Uses)
(indicating paint compns. for detection of leaks of toxic organophosphorus compds. from containers)

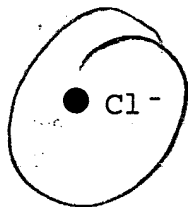
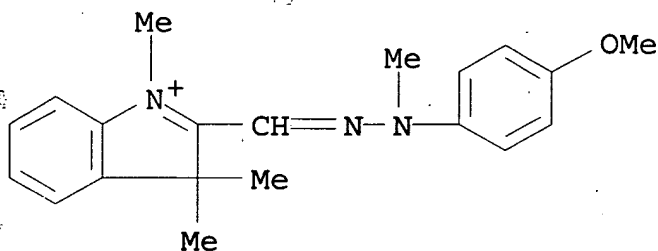
RN 662134-96-5 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, chloride, compd. with tungsten hydroxide oxide phosphate (9CI) (CA INDEX NAME)

CM 1

CRN 38936-35-5

CMF C20 H24 N3 O . Cl



CM 2

CRN 12067-99-1

CMF Unspecified

CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IC ICM C09D127-04

CC 42-10 (Coatings, Inks, and Related Products)

Section cross-reference(s): 4

IT Rosin

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(reaction products, with glycerol; indicating paint compns. for detection of leaks of toxic organophosphorus compds. from containers)

IT 11118-57-3, Chromium oxide 15804-54-3, Lead chrome yellow

51274-00-1, Yellow iron oxide 68957-78-8 662134-92-1

662134-94-3 662134-96-5 663155-67-7, PPG 3A

RL: MOA (Modifier or additive use); USES (Uses)

(indicating paint compns. for detection of leaks of toxic organophosphorus compds. from containers)

IT 56-81-5, Glycerol, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)
(reaction products with rosin; indicating paint compns.
for detection of leaks of toxic organophosphorus compds. from
containers)

L44 ANSWER 3 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:36589 HCAPLUS
DOCUMENT NUMBER: 138:74861
TITLE: Jet-printing inks and image formation methods
INVENTOR(S): Takimoto, Hiroshi
PATENT ASSIGNEE(S): Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003012978	A2	20030115	JP 2001-200468	20010702

PRIORITY APPLN. INFO.:

<--
JP 2001-200468
20010702

AB Inks contain pigments having nonlocalized basic groups and oligomers having acid groups. Thus, a magenta ink on electrophotog. paper contained diethylene glycol 10, isopropanol 3, C.I. Acid Red 289 3, a formaldehyde-naphthalenesulfonic acid condensate 9, water, and aq. LiOH to 100 parts and pH 9.

IT 54060-92-3, C.I. Basic Yellow 28
RL: TEM (Technical or engineered material use); USES (Uses)
(C.I. Basic Yellow 28; jet-printing inks contg. pigments having nonlocalized basic groups and oligomers having acid groups)

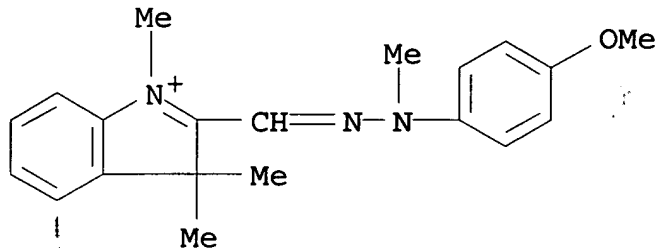
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

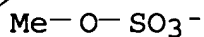
CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S



IT 9003-01-4, Poly(acrylic acid)

RL: TEM (Technical or engineered material use); USES (Uses)
 (jet-printing inks contg. pigments having nonlocalized basic
 groups and oligomers having acid groups)

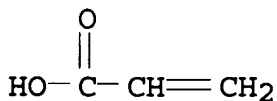
RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2



IC ICM C09D011-00

ICS B41J002-01; B41M005-00

CC 42-12 (Coatings, Inks, and Related Products)

IT 54060-92-3, C.I. Basic Yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)

(C.I. Basic Yellow 28; jet-printing inks contg. pigments having nonlocalized basic groups and oligomers having acid groups)

IT 50-00-0D, Formaldehyde, polymers with Bisphenol A carboxylic acid
80-05-7D, Bisphenol A, carboxylic acid deriv., polymers with formaldehyde 6441-93-6, C.I. Acid Red 35 9003-01-4, Poly(acrylic acid) 9017-33-8, Formaldehyde-naphthalenesulfonic acid copolymer 12221-59-9, C.I. Basic Red 35 25300-64-5, Maleic acid-styrene copolymer 37372-89-7, C.I. Basic Blue 105 197656-08-9

RL: TEM (Technical or engineered material use); USES (Uses)
(jet-printing inks contg. pigments having nonlocalized basic groups and oligomers having acid groups)

L44 ANSWER 4 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:113427 HCAPLUS
DOCUMENT NUMBER: 130:183750
TITLE: Liquid softening agent composition with good storage stability for synthetic fiber
INVENTOR(S): Shiratsuchi, Kazutaka; Ushio, Noriaki
PATENT ASSIGNEE(S): Kao Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11043865	A2	19990216	JP 1997-195990	19970722
JP 3066345	B2	20000717	JP 1997-195990	19970722

OTHER SOURCE(S): MARPAT 130:183750

AB Title compn. with good storage stability and no dyeability with synthetic fiber comprises (A) ≥ 1 compds. selected from tertiary amine with 1 or 2 linear or side chain-contg. long chains having linear or branched C11-36 alkyl or alkenyl group, and ester, amic acid or ether bond, inorg. acid, C1-6 org.

acid salt and its quaternary compd. 3-25 wt% and (B) ≥ 1 dyes selected from (B-I) group of Liquitint Sunbeam Yellow, Liquitint Yellow LP, Liquitint Amber, and Liquitint Pink, (B-II) group of basic dye, reactive dye, and mordant-acidic mordant, which are classified by color index name as blue, red, violet, or yellow, (B-III) group of acid or direct dye selected from carbonium dye and classified by color index name as blue, red, violet or yellow 0.1-100 ppm, and has pH of 1.3-5.5 and viscosity of 2-300 mPa·s at 20°. Thus a softening agent compn. comprising fatty acid ester of dimethyldiethanolammonium chloride 15 and Basic Yellow 28 0.001 part was prepd., showing viscosity 40 mPa·s, pH 3.5, and good storage stability and dyeability.

IT 54060-92-3, Basic yellow 28

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(compn. contg.; prepn. of liq. softening agent compn. with good storage stability for synthetic fiber)

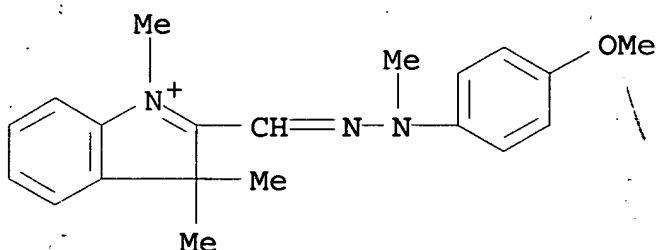
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM D06M013-46
ICS D06M013-00; D06M013-342
CC 40-9 (Textiles and Fibers)
IT 56-81-5, Glycerine, uses 57-11-4, Stearic acid, uses 64-17-5, Ethanol, uses 67-63-0, Isopropyl alcohol, uses 105-59-9D, esters with fatty acid 107-21-1, Ethylene glycol, uses 112-53-8D, Lauryl alcohol, polyoxyalkylene derivs. 112-92-5, Stearic alcohol 126-14-7 128-37-0, B.H.T., uses 590-46-5D, esters with C36 alc. 1323-83-7 2390-60-5, Basic blue 7 2580-56-5, Basic blue 26 3486-30-4, Acid blue 7 3520-42-1, Acid red 52 3734-33-6, Denatonium benzoate 9043-30-5 12221-83-9, Basic yellow 36 12677-15-5, Reactive blue 71 13081-97-5 15000-59-6, Basic blue 54 25322-68-3, Poly(ethylene glycol) 25322-68-3D, Poly(ethylene glycol), fatty amine derivs. 38402-02-7D, esters with fatty acid 41999-70-6D, ester, amide with fatty acid 52417-21-7D, ester, amide with fatty acid 54060-92-3, Basic yellow 28 151734-20-2D, ester, amide with fatty acid 215917-73-0D, esters with fatty acid
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(compn. contg.; prepn. of liq. softening agent compn. with good storage stability for synthetic fiber)

L44 ANSWER 5 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:506105 HCAPLUS
DOCUMENT NUMBER: 127:163171
TITLE: Thermal dye printing of color images without retransfer of dye
INVENTOR(S): Janssens, Wilhelmus; Vanmaele, Luc
PATENT ASSIGNEE(S): Agfa-Gevaert Naamloze Vennootschap, Belg.
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 785087	A1	19970723	EP 1996-200076	19960116

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R: DE, FR, GB
JP 09216473

A2 19970819 JP 1997-15986

199701
14

PRIORITY APPLN. INFO.:

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EP 1996-200076 A

199601
16

OTHER SOURCE(S): MARPAT 127:163171

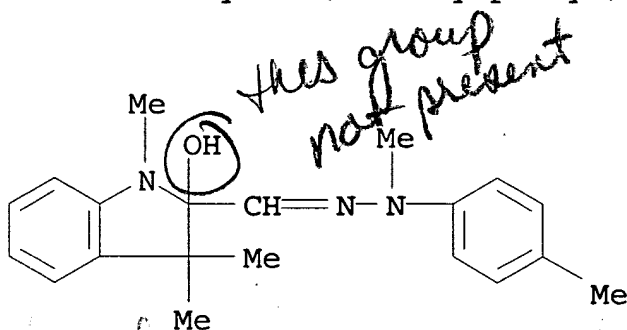
AB The title process comprises printing ≥ 2 color sepns. such as yellow and cyan, by (i) bringing a dye donor layer into face-to-face relation with a receiving layer comprised on a support of a receiving element; (ii) image-wise heating the (i) transferring the dye to the receiving layer; (iii) sepg. the dye donor layer from the receiving layer; (i.v.) forming ≥ 1 other assemblage having a primary color different from a color of a dye donor layer used in any other assemblage and comprising a dye; (v) image-wise heating the other assemblage transferring the dye to the receiving layer, characterized in that a component A **org. acid** reagent and B dye precursor, both being colorless or semi-colorless and preferably in different dye layers, are brought in reactive assocn. forming a color of similar hue as a previously rendered color sepn. of the image.

IT 55120-60-0

RL: MOA (Modifier or additive use); USES (Uses)
(for thermal dye printing of color images without retransfer of dye)

RN 55120-60-0 HCAPLUS

CN 1H-Indole-2-carboxaldehyde, 2,3-dihydro-2-hydroxy-1,3,3-trimethyl-, 2-methyl-2-(4-methylphenyl)hydrazone (9CI) (CA INDEX NAME)



IC ICM B41M005-38

ICS G03F003-10; B41M005-34

CC 42-2 (Coatings, Inks, and Related Products)

IT 16533-45-2 55120-60-0 56133-41-6
RL: MOA (Modifier or additive use); USES (Uses)
(for thermal dye printing of color images without retransfer of dye)

L44 ANSWER 6 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:543920 HCAPLUS
DOCUMENT NUMBER: 125:181320
TITLE: Sublimation dye-receiving substrate for
manufacturing color filter and dyeing method
INVENTOR(S): Matsunaga, Daisaku; Futamura, Nobuyuki; Oonishi,
Masao; Kano, Hirokazu
PATENT ASSIGNEE(S): Nippon Kayaku Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08146213	A2	19960607	JP 1994-308409	19941118

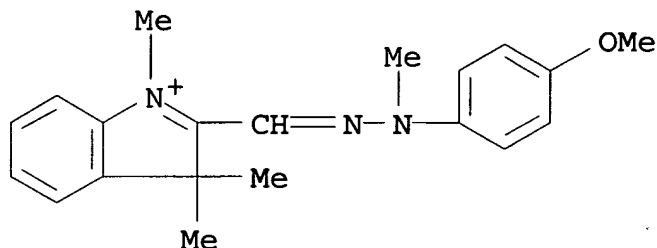
PRIORITY APPLN. INFO.: JP 1994-308409 19941118

AB The title substrate comprises a cured photoresist layer contg. a resin with an acid value of ≥ 80 on a transparent substrate. The resin may comprise a resin contg. a carboxylic acid group and a carboxylate group or a polymer of (meth)acrylic acid (ester). The substrate provided a high quality filter.

IT 129696-20-4
RL: MOA (Modifier or additive use); USES (Uses)
(sublimation dye for manufg. color filter)
RN 129696-20-4 HCAPLUS
CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, benzoate (9CI) (CA INDEX NAME)

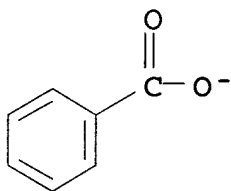
CM 1

CRN 52757-89-8
CMF C20 H24 N3 O



CM 2

CRN 766-76-7
CMF C7 H5 O2



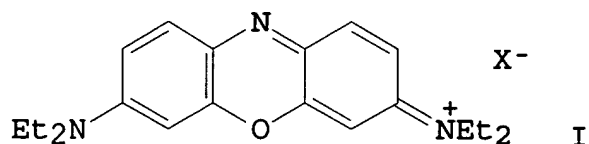
IC ICM G02B005-20
ICS B41M005-38; G03F007-105
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 129696-20-4 180737-01-3 180737-02-4, uses
RL: MOA (Modifier or additive use); USES (Uses)
(sublimation dye for manufg. color filter)

L44 ANSWER 7 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:8222 HCAPLUS
DOCUMENT NUMBER: 114:8222
TITLE: Concentrated cationic dye solutions
INVENTOR(S): Dix, Johannes Peter; Hansen, Guenter; Kast, Hellmut
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 8 pp.

DOCUMENT TYPE: CODEN: GWXXBX
 LANGUAGE: Patent
 FAMILY ACC. NUM. COUNT: German
 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3833195	A1	19900405	DE 1988-3833195	198809 30
US 4976744	A	19901211	US 1989-406244	198909 12
EP 361293	A2	19900404	EP 1989-117365	198909 20
EP 361293	A3	19911030		
EP 361293	B1	19940720		
R: CH, DE, FR, GB, IT, LI				
KR 9709079	B1	19970605	KR 1989-14022	198909 29
PRIORITY APPLN. INFO.:			DE 1988-3833195	A 198809 30

GI



AB Pptn.-resistance concd. cationic dye solns. are prepd. by anion
 exchange of cationic dyes in aq. glycol ether
 solns. contg. alkali metal salts of monocarboxylic acids, optionally

in the presence of complexation agents, forming a monocarboxylic acid salt of the cationic dye in the org. phase of the reaction mixt. Thus, to a mixt. of a 42.5% Na formate soln. 739, sodium salts of nitrilotriacetic acid 49, ethyleneglycol monobutyl ether 108, and 57 mL H₂O, with added 121 g I (X = 1/2 ZnCl₄²⁻). The mixt. was stirred for 3.5 h at room temp., and phase sepd., to produce 243 g of an ethyleneglycol monobutyl ether soln. contg. I (X = HCO₂⁻).

IT 129696-20-4 129696-22-6

RL: USES (Uses)

(manuf. of concd. solns. contg., pptn.-resistant)

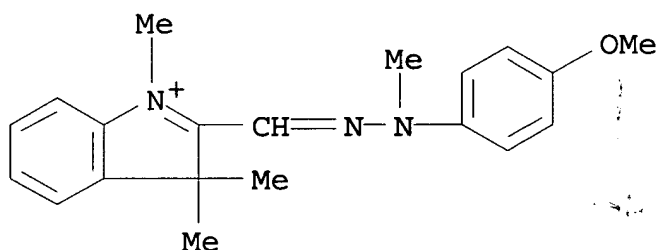
RN 129696-20-4 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, benzoate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

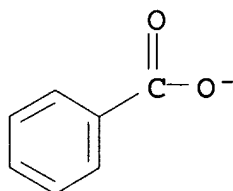
CMF C20 H24 N3 O



CM 2

CRN 766-76-7

CMF C7 H5 O2



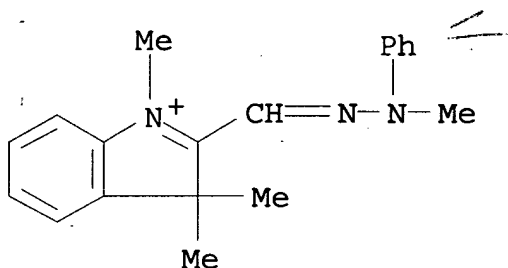
RN 129696-22-6 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[(methylphenylhydrazono)methyl]-, salt with 2-ethylhexanoic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 65121-72-4

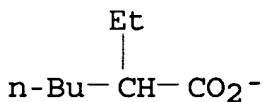
CMF C19 H22 N3



CM 2

CRN 18035-91-1

CMF C8 H15 O2



IT 54060-92-3 84788-03-4

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with monocarboxylic acid alkali metal salts)

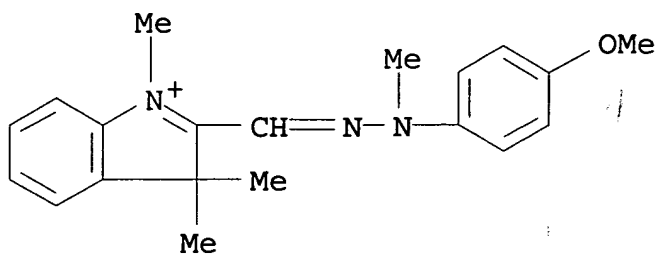
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

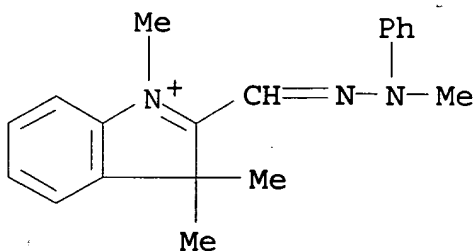
RN 84788-03-4 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[(methylphenylhydrazono)methyl]-, nitrate (9CI) (CA INDEX NAME)

CM 1

CRN 65121-72-4

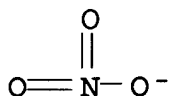
CMF C19 H22 N3



CM 2

CRN 14797-55-8

CMF N O3



IC ICM C09B067-34
ICS C09B067-44
CC 40-6 (Textiles and Fibers)
Section cross-reference(s): 41
ST concd cationic dye soln manuf; pptn resistance cationic dye soln;
glycol ether cationic dye soln; anion **exchange**
cationic dye soln; alkali carboxylate anion exchange dye
IT 113534-44-4 129696-19-1 **129696-20-4** 129696-21-5
129696-22-6 129717-88-0 129717-89-1 129717-91-5
130953-16-1
RL: USES (Uses)
(manuf. of concd. solns. contg., pptn.-resistant)
IT 42373-04-6 49722-08-9 **54060-92-3** 63589-33-3
63589-47-9 **84788-03-4** 129696-16-8 129696-17-9
129696-18-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with monocarboxylic acid alkali metal salts)

L44 ANSWER 8 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:100901 HCAPLUS
DOCUMENT NUMBER: 112:100901
TITLE: Manufacture of water-thinned inks
INVENTOR(S): Wagi, Minoru; Mizuno, Masayuki
PATENT ASSIGNEE(S): Mikoku Shikiso K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 01197582	A2	19890809	JP 1988-22627	198802 01
JP 07084572	B4	19950913		

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PRIORITY APPLN. INFO.:

JP 1988-22627

198802

01

AB Light- and water-resistant, storage-stable, aq. inks, useful on heat- or pressure-sensitive paper, are manufd. by soln.-polymg. ethylenic monomers contg. acidic or basic groups in the presence of a water-sol. dye and a water-sol. org. solvent and dispersing the polymers in a latex (av. particle size $\leq 0.3 \mu\text{m}$) prepd. by polymg. ethylenic monomers to allow the polymers to be adsorbed on the latex particles. Thus, heating a mixt. of diethylene glycol 80, Kayacryl Yellow 3G-S (C.I. Basic Yellow 51) 10, acrylic acid 10, lauryl mercaptan 0.1, and AIBN 0.2 part at 80° gave a polymer which (30 parts) was added dropwise to a latex prepd. by heating a mixt. of H_2O 60, acrylonitrile 5, chlorostyrene 20, Me acrylate 15, $(\text{NH}_4)_2\text{S}_2\text{O}_8$ 0.1, and Na lauryl sulfate 2 parts at 70° to give a yellow ink (34.5% solids, viscosity 4.5 cP, av. particle size $0.10 \mu\text{m}$). The ink showed no change when kept sealed at 50° for 3 mo, no running when printed on Kent paper and immersed in H_2O for 1 min, and good light resistance.

IT 83949-75-1, C.I. Basic Yellow 51

RL: USES (Uses)

(inks contg. polymer particles and, aq., stable)

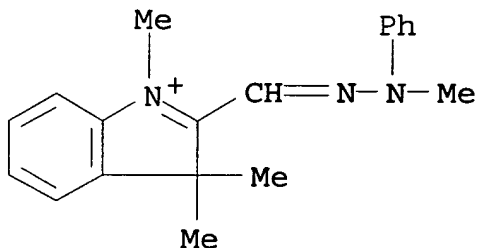
RN 83949-75-1 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[(methylphenylhydrazono)methyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 65121-72-4

CMF C19 H22 N3



CM 2

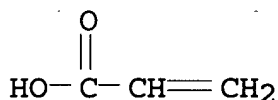
CRN 21228-90-0
CMF C H3 O4 S

Me-O-SO₃⁻

IT 9003-01-4, Acrylic acid polymer
RL: USES (Uses)
(inks contg. water-sol. dyes and, aq., stable)
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



IC ICM C09D011-10
ICS C09D011-10; C09D011-16
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 35
IT 3520-42-1, C.I. Acid Red 52 6798-03-4, C.I. Direct Violet 66
12220-64-3, C.I. Acid Yellow 19 83949-75-1, C.I. Basic
Yellow 51 97666-43-8, C.I. Basic Blue
RL: USES (Uses)
(inks contg. polymer particles and, aq., stable)
IT 9003-01-4, Acrylic acid polymer 9003-47-8, Vinylpyridine
polymer 9080-79-9 26124-23-2, Acrylamide-N-vinylpyrrolidone
copolymer 27084-61-3 54334-33-7, Acrylonitrile-ethylene glycol
dimethacrylatemethyl acrylate copolymer 125349-93-1 125349-94-2
125349-95-3 125457-86-5
RL: USES (Uses)
(inks contg. water-sol. dyes and, aq., stable)

L44 ANSWER 9 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:592852 HCAPLUS
DOCUMENT NUMBER: 105:192852
TITLE: Storage-stable liquid cationic dye compositions

INVENTOR(S): Haehnke, Manfred; Ong, Sien Ling; Hohmann, Kurt
 PATENT ASSIGNEE(S): Hoechst A.-G. , Fed. Rep. Ger.
 SOURCE: Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3439266	A1	19860430	DE 1984-3439266	19841026
WO 8602658	A1	19860509	WO 1985-EP536	19851012
W: JP, KR, US				
RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
EP 198044	A1	19861022	EP 1985-905327	19851012
EP 198044	B1	19890208		
R: AT, BE, CH, DE, FR, GB, IT, LI				
JP 62500597	T2	19870312	JP 1985-504728	19851012
AT 40710	E	19890215	AT 1985-905327	19851012
US 4765797	A	19880823	US 1987-58983	19870608
PRIORITY APPLN. INFO.:			DE 1984-3439266	A 19841026
			EP 1985-905327	A

198510
12<--
WO 1985-EP536 W198510
12<--
US 1986-879106 A1198606
13

AB Cationic dyes are stabilized by the addn. of an oxidant and the compns. contain a mixt. of 2-5 cationic dyes, the oxidant, water, water-miscible org. solvents, and optionally an org. and/or inorg. acid. The stabilizing oxidants are HClO₃, HClO₂, HBrO₃, HIO₃, HClO₄, H₂CrO₄, H₂Cr₂O₇, HVO₃, H₂S₂O₈, Fe³⁺ compds., or oxidizing org. compds., e.g., N-haloamides or quinolines, and are utilized at levels of 0.1-1%. Thus, C.I. Basic Blue 41 (as 20% soln. of dye methosulfate), C.I. Basic Red 46 (as a .apprx.25% soln. of methosulfate) 13, C.I. Basic Yellow 28 (as a liq. contg. 40% dye acetate) 11.5, and NaClO₃ 0.2 part. The prepn. had pH 1-1.5, was stable as a homogeneous soln., and dyed acrylic fibers a deep black color. The soln. was stable for 1 yr at 0-5°, 1 yr at 20°, 2 mo at 40°, and 1 mo at 60°.

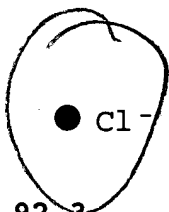
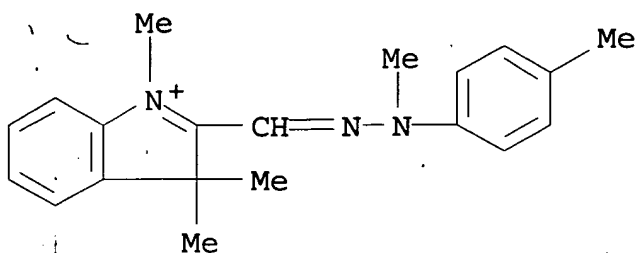
IT 68134-38-3

RL: USES (Uses)

(solns. of dye mixts. contg., stabilization of, with oxidizing agents)

RN 68134-38-3 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, chloride (9CI) (CA INDEX NAME)



IT 54060-92-3

RL: PROC (Process)

(stabilization of, with **org. acids** and
oxidants)

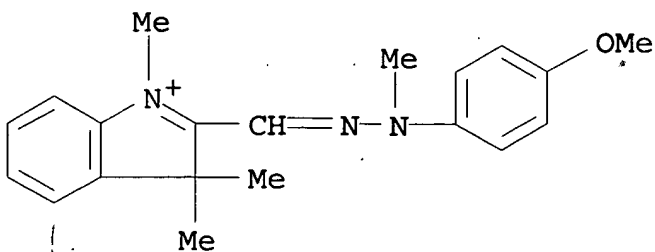
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-
trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09B067-32
CC 41-1 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 40
IT 569-64-2 3248-91-7 6359-45-1 6359-50-8 12217-48-0
12221-52-2 12221-69-1 12270-13-2 12271-12-4 15000-59-6
54229-15-1 55840-82-9 68134-38-3 69852-41-1
71872-38-3 99035-77-5 105054-69-1
RL: USES (Uses)
(solns. of dye mixts. contg., stabilization of, with oxidizing
agents)
IT 54060-92-3
RL: PROC (Process)
(stabilization of, with org. acids and
oxidants)

L44 ANSWER 10 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:480896 HCAPLUS
DOCUMENT NUMBER: 105:80896
TITLE: Basic dye ink formulations and methods
INVENTOR(S): Gamblin, Rodger L.
PATENT ASSIGNEE(S): USA
SOURCE: Eur. Pat. Appl., 16 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 179319	A1	19860430	EP 1985-112470	198510 02
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EP 179319	B1	19890628		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4657590	A	19870414	US 1984-663230	198410 22
<--				

Check

AT 44288

E

19890715

AT 1985-112470

198510
02

PRIORITY APPLN. INFO.:

<--
US 1984-663230

A

198410
22<--
EP 1985-112470

A

198510
02

AB Title formulations that form a permanent bond to craft paper and newsprint but do not dry out on press rollers, useful in flexog. and letterpress presses, contain a basic dye, 40-98% polyhydroxy alcs. or ethers having ≥ 1 OH group/4 C atoms, and $\geq 0.2\%$ water-sol. acid group-contg. polymer. Thus, a typical black newspaper flexog. ink compn. contains diethylene glycol 60, 25% poly(acrylic acid) 9.5, and H₂O 30.5 L, 100 g benzotriazole, Malachite Green 2, Fuchsine YS 2, and Auramine O 2 kg. The ink adequately wet the press, remained in liq. state for over 16 h, and bonded firmly to newsprint.

IT 9003-01-4 25087-26-7

RL: USES (Uses)

(binder, basic ink dye contg., for printing on cellulosic substrates)

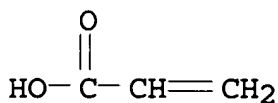
RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7

CMF C3 H4 O2

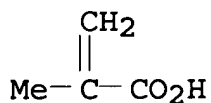


RN 25087-26-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-41-4
CMF C4 H6 O2



IT 54060-92-3

RL: USES (Uses)

(ink contg. polyhydroxy alc., acid group-contg. polymer and, for printing on cellulosic substrates)

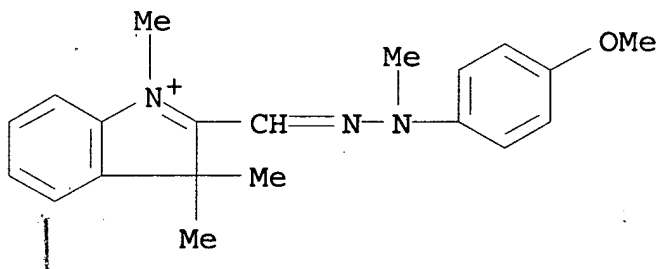
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

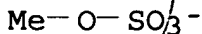
CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S



IC ICM C09D011-02

ICS C09D011-10

CC 42-12 (Coatings, Inks, and Related Products)

ST diethylene glycol printing ink black; **polyacrylic**
acid printing ink; malachite green printing ink black;
fuchsine printing ink black; auramine printing ink black; flexog
printing ink

IT 9003-01-4 25087-26-7 25751-21-7

RL: USES (Uses)

(binder, basic ink dye contg., for printing on cellulosic
substrates)

IT 81-88-9 532-82-1 548-62-9 569-64-2 2390-60-5 2465-27-2
3521-06-0 54060-92-3 103779-83-5

RL: USES (Uses)

(ink contg. polyhydroxy alc., acid group-contg. polymer and, for
printing on cellulosic substrates)

L44 ANSWER 11 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1983:108813 HCAPLUS

DOCUMENT NUMBER: 98:108813

TITLE: Water-soluble powders or concentrated solutions
of cationic dyes

INVENTOR(S): Jackson, Malcolm Stewart; Varley, John Howard

PATENT ASSIGNEE(S): Yorkshire Chemicals Ltd., UK

SOURCE: Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
EP 66405	A2	19821208	EP 1982-302508	198205 18

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EP 66405 A3 19830810

EP 66405 B1 19850410

R: DE, FR, GB, IT

PRIORITY APPLN. INFO.:

GB 1981-16609

A

198105
30

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AB Cationic dyes in the form of water-sol. solids or concd. solns. are
obtained by treating a cationic dye with a cyanate salt, isolating
the cationic dye cyanate, treating the dye cyanate with an

org. acid to produce a soln. of the cationic dye salt of the org. acid, and optionally converting the soln. to a solid form. The products are used to dye acrylic or acid-modified polyamide or polyester fibers. For example, a soln. of 80 g 2,4-Cl(O₂N)C₆H₃N:NC₆H₄NEtCH₂CH₂Q+Cl--4 (Q = pyridinio) [36986-04-6] in 1 L H₂O at 30° was treated portionwise with 40 g KOCN in 100 mL H₂O, cooled to 25° to ppt. the dye cyanate [84890-84-6], and filtered. The filter cake was slurried in 50 g H₂O and 40 g HOCH₂CH₂OH, and treated gradually with HOAc to give a stable concd. soln. of the dye acetate [59709-10-3], which could be used directly.

IT 84890-73-3P

RL: IMF (Industrial manufacture); PREP (Preparation)
(dye, concd. soln. of, prepn. of)

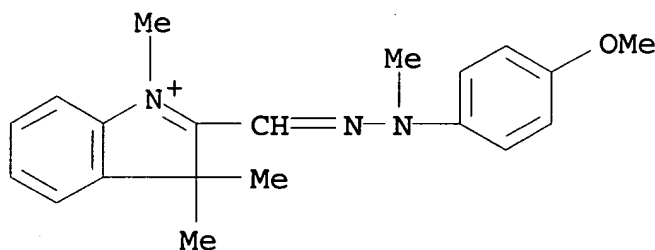
RN 84890-73-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, formate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

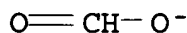
CMF C20 H24 N3 O



CM 2

CRN 71-47-6

CMF C H O2



IT 84898-50-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

RACT (Reactant or reagent)

(prepn. and reaction with formic acid)

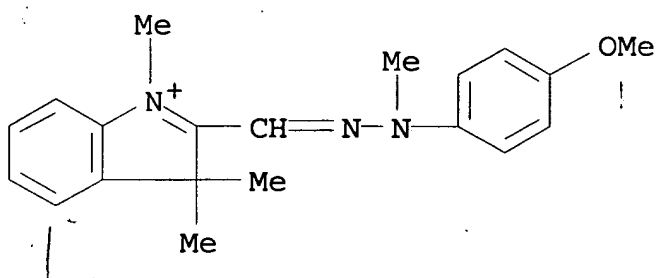
RN 84898-50-0 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, cyanate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

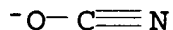
CMF C20 H24 N3 O



CM 2

CRN 661-20-1

CMF C N O



IT 54060-92-3

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with potassium cyanate)

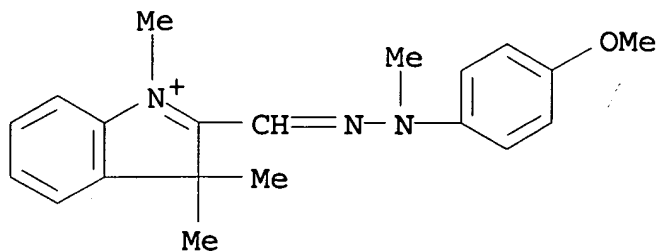
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC C09B067-32; C09B067-34; C09B069-06; D06P001-41

CC 40-6 (Textiles)

Section cross-reference(s): 41

ST cationic dye concd soln; cyanate salt cationic dye; **org**
acid salt cationic dye; carboxylate salt cationic dyeIT 59709-10-3P 84890-72-2P **84890-73-3P** 84890-74-4P
84890-76-6PRL: IMF (Industrial manufacture); PREP (Preparation)
(dye, concd. soln. of, prepn. of)IT **84898-50-0P**RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);
RACT (Reactant or reagent)
(prepn. and reaction with formic acid)IT 36986-04-6 **54060-92-3** 84890-81-3RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with potassium cyanate)

L44 ANSWER 12 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:552144 HCAPLUS

DOCUMENT NUMBER: 95:152144

TITLE: Water-insoluble salts of basic dyes

INVENTOR(S): De Feo, Francesco; Basilico, Adelio

PATENT ASSIGNEE(S): ACNA-Aziende Colori Nazionali Affini S.p.A.,
Italy

SOURCE: Ger. Offen., 32 pp.

DOCUMENT TYPE:

CODEN: GWXXBX

LANGUAGE:

Patent

FAMILY ACC. NUM. COUNT:

German

1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 3029581	A1	19810226	DE 1980-3029581	198008 05
FR 2463166	A1	19810220	<-- FR 1980-17269	198008 05
FR 2463166 GB 2065694	B1 A	19840330 19810701	<-- GB 1980-25528	198008 05
GB 2065694 ✓US 4306875 <i>Check</i>	B2 A	19830602 19811222	<-- US 1980-175598	198008 05
NL 8004474	A	19810212	<-- NL 1980-4474	198008 06
JP 56045959	A2	19810425	<-- JP 1980-107255	198008 06
BE 884694	A1	19810209	<-- BE 1980-201686	198008 08
CA 1147328	A1	19830531	<-- CA 1980-358024	198008 08
CH 652736	A	19851129	<-- CH 1980-6026	198008

08

ES 494145

A1 19810801

<--
ES 1980-494145

198008

09

PRIORITY APPLN. INFO.:

<--
IT 1979-25061

A

197908

10

AB Dye salts which are water-insol. and sol. in polar org. and dipolar aprotic solvents and are salts of a chromogenic cation which is a residue of a dye or fluorescent whitener contg. ≥ 1 ionizable groups(s) and an anionic boric acid ester are used to dye and color acrylic fibers, paper, inks, and plastics. Thus, a mixt. of salicylic acid [69-72-7] 0.2, boric acid 0.1, p-anisidine [104-94-9] 0.1 mol, and 1,3,3-trimethylindolineacetaldehyde [84-83-3] 27.6 parts was stirred in Cellosolve to give C.I. Basic Yellow 13 cation-anionic borate ester salt [78713-02-7].

IT 78713-01-6

RL: USES (Uses)

(dye, org. solvent-sol.)

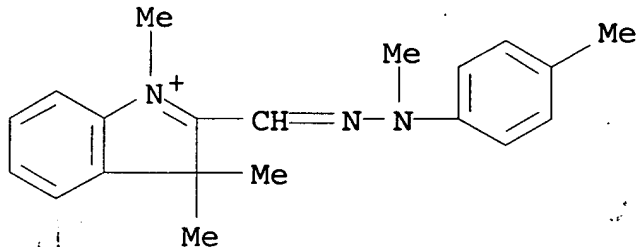
RN 78713-01-6 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, (T-4)-bis[2-(hydroxy- κ O)benzoato(2-)- κ O]borate(1-) (9CI) (CA INDEX NAME)

CM 1

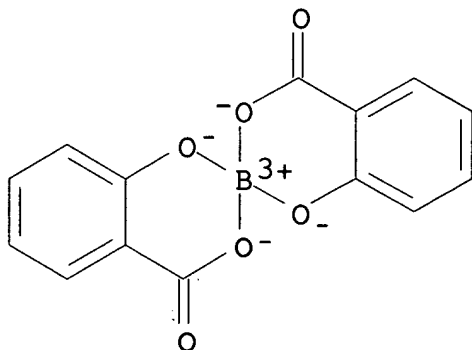
CRN 73019-08-6

CMF C20 H24 N3



CM 2

CRN 38403-08-6
CMF C14 H8 B O6
CCI CCS



IC C09B069-02; C09B067-32; D06P001-41; D06L003-12
CC 40-1 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
IT 69-72-7D, reaction products with boric acid, salts with C.I. Basic Yellow 11 130-85-8D, borate esters, salts with C.I. Basic Yellow 13 10043-35-3D, reaction products with salicylic acid, salts with C.I. Basic Yellow 11 47440-84-6D, salt with boric acid-salicylic acid reaction product 78527-98-7 78590-51-9D, salts with borate esters 78713-01-6 78713-02-7 78713-03-8
RL: USES (Uses)
(dye, org. solvent-sol.)

L44 ANSWER 13 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1981:485703 HCAPLUS

DOCUMENT NUMBER: 95:85703

TITLE: Recent applications of dynamic membranes

AUTHOR(S): Brandon, Craig A.; Gaddis, J. Leo; Spencer, H. Garth

CORPORATE SOURCE: CARRE, Inc., Seneca, SC, 29678; USA

SOURCE: ACS Symposium Series (1981),
154(Synth. Membr., Vol. 2), 435-53
CODEN: ACSMC8; ISSN: 0097-6156

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Dyes were sepd. from saline dye manufg. effluent and from dye range wash water by dynamically formed hyperfiltration membranes of the ZrO₂-polyacrylic acid [9003-01-4] type on porous stainless steel. Sepn. of dye from salt in the manufg. effluent was substantial and effective, while the rejection

and fluxes with range wash water were adequate for renovation and reuse of the water. Fluxes were concn. dependent.

IT 54060-92-3

RL: REM (Removal or disposal); PROC (Process)

(removal of, from dyeing effluents, by hyperfiltration, hydrous zirconium oxide-polyacrylic acid membranes in)

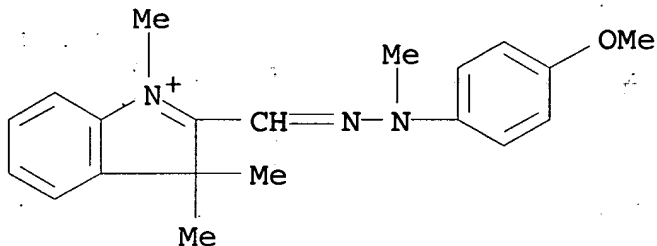
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IT 9003-01-4

RL: PROC (Process)

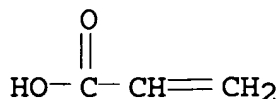
(zirconium oxide membrane with, hyperfiltration with, of dyeing effluents)

RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



- CC 60-2 (Sewage and Wastes)
Section cross-reference(s): 40
- IT Membranes and Diaphragms
(**polyacrylic acid**-zirconium oxide,
hyperfiltration with, of dyeing effluents)
- IT Dyes
(removal of, from wastewater, by hyperfiltration, hydrous
zirconium oxide-**polyacrylic acid** membranes
in)
- IT Wastewater treatment
(hyperfiltration, of dyeing effluents, hydrous zirconium oxide-
polyacrylic acid membranes in)
- IT 1314-23-4, uses and miscellaneous
RL: USES (Uses)
(**polyacrylic acid** membrane with,
hyperfiltration with, of dyeing effluents)
- IT 6408-78-2 12715-61-6 54060-92-3
RL: REM (Removal or disposal); PROC (Process)
(removal of, from dyeing effluents, by hyperfiltration, hydrous
zirconium oxide-**polyacrylic acid** membranes
in)
- IT 9003-01-4
RL: PROC (Process)
(zirconium oxide membrane with, hyperfiltration with, of dyeing
effluents)

L44 ANSWER 14 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1974:522644 HCAPLUS

DOCUMENT NUMBER: 81:122644

TITLE: Transfer printing

INVENTOR(S): Naito, Shozo; Jono, Junzaburo; Imada, Kunihiro;
Oida, Yoji; Enomoto, Shigeharu; Yamada, Eiji;
Sueda, Yoshihisa; Takeda, Yoshiro

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.

SOURCE: Jpn. Tokkyo Koho, 23 pp.

CODEN: JAXXAD

DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48042278	B4	19731211	JP 1970-130390	19701226

PRIORITY APPLN. INFO.:

<--
JP 1970-130390

19701226

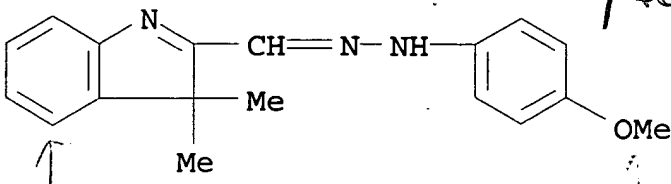
AB The transfer printing on cellulosic, acrylic, polyester, cotton, and nylon textiles involved quaternization of N-contg. dyes on the textiles to form cationic dyes. For example, a dispersion from I [52497-15-1] 5, polymd. linseed oil 40, tung oil 15, **rosin-modified maleic acid resin** 10, and alumina white 30 parts was offset-printed on paper to give transfer sheet A. A dispersion from Ph glycidyl ether [122-60-1] 5, benzoic acid [65-85-0] 3, polymd. linseed oil 40, tung oil 12, **rosin**-modified maleic **acid resin** 10, and alumina white 30 parts was similarly printed to give transfer sheet B. Triacetate fabric was pressed to the transfer sheet A at 210.deg. for 30 sec to give a yellow print which was pressed to the transfer sheet B at 210.deg. for 30 sec to give bright reddish orange print with good sublimation fastness.

IT 52497-15-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(quaternization of, by phenyl glycidyl ether in presence of benzoic acid, in transfer printing on triacetate textiles)

RN 52497-15-1 HCAPLUS

CN 3H-Indole-2-carboxaldehyde, 3,3-dimethyl-, (4-methoxyphenyl)hydrazone (9CI) (CA INDEX NAME)



IC D06P; B41M; C09D

CC 39-7 (Textiles)

IT 52497-15-1

RL: RCT (Reactant); RACT (Reactant or reagent)
(quaternization of, by phenyl glycidyl ether in presence of
benzoic acid, in transfer printing on triacetate textiles)

L44 ANSWER 15 OF 15 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1963:455693 HCAPLUS

DOCUMENT NUMBER: 59:55693

ORIGINAL REFERENCE NO.: 59:10278a-d

TITLE: Basic azo dyes.

INVENTOR(S): Raue, Roderick

PATENT ASSIGNEE(S): Farbenfabriken Bayer A.-G.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1083000		19600609	DE 1957-F23877	195708 30

PRIORITY APPLN. INFO.:

DE <--
195708
30

GI For diagram(s), see printed CA Issue.

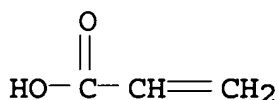
AB Yellow dyes for acrylic and acetate fibers are described, which are quaternary salts having cations of the formula I, where R is the residue of a 5- or 6-membered heterocyclic ring, R1 is Me, Et, or Bu, and R2 is H, Me, OMe, or NHAc. Thus, the hydrazo compd. from the coupling of diazotized PhNH2 and 1,3,3-trimethyl-2-methyleneindoline (II) is converted with aq. Na2CO3 to the azo form III, m. 105-6° (MeOH). III 27.7 in PhMe 100 treated dropwise with Me2SO4 12.6 parts and heated on the water bath 3 hrs. gave yellow crystals of the pure methosulfate, dyeing acrylic and acetate fibers clear yellow shades, very fast to light. Similarly, other dyes are prepd. from II (diazo component, quaternizing agent, dye m.p. and shade given): p-toluidine (IV) (azo compd. m. 153-4°), p-MeC6H4SO3Me (V), 202-3°, redyellow; IV,

Mel, 241-2°, red-yellow; IV, Et₂SO₄, -, red-yellow; IV, p,-MeC₆H₄SO₃Et, -, - IV, EtI, -, red-yellow; IV, BuBr, -, red-yellow; IV, Me₂SO₄, -, red-yellow. Other combinations described are: hydrazome from 1-methyl-2-formylbenzimidazole and PhNHNH₂ quaternized with Me₂SO₄, orange; coupling product from diazotized IV and 1,3,4-trimethyl-6-methylenedihydro-2-pyrimidinone (VI) (azo compd. m. 186-8°) quaternized with Me₂SO₄, red-yellow; p-MeOC₆H₄NH₂ → VI (m. 174-8° and p-AcNHC₆H₄NH₂ → VI (m. 219°) each quaternized with Me₂SO₄, oranges; IV → 3-methyl-2-methylene-benzothiazoline quaternized with Me₂SO₄, red-yellow; 1,2-dihydro - 1 - methyl - 2 - [(phenylazo)methylene] quinoline quaternized with Me₂SO₄, red-yellow.

IT 9003-01-4, Acrylic acid, homopolymer
(dyes for)
RN 9003-01-4 HCAPLUS
CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2

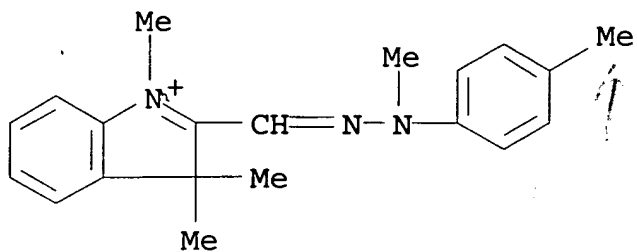


IT 92908-53-7, 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, salt with 4-methylbenzenesulfonic acid (1:1) 100170-01-2, 2-Formyl-1,3,3-trimethyl-3H-indolium iodide, methyl-p-tolylhydrazone 100435-05-0, 2-Formyl-1,3,3-trimethyl-3H-indolium ethyl sulfate, ethyl-p-tolylhydrazone 100659-58-3, 2-Formyl-1,3,3-trimethyl-3H-indolium bromide, butyl-p-tolylhydrazone (prepn. of)
RN 92908-53-7 HCAPLUS
CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 73019-08-6

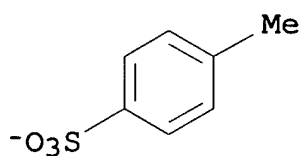
CMF C20 H24 N3



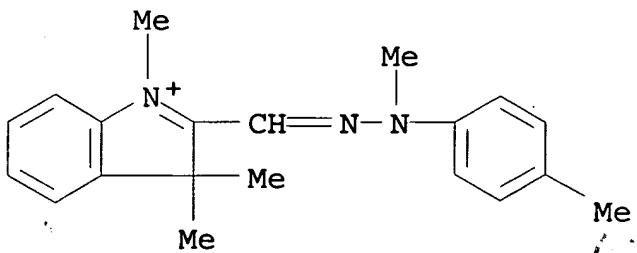
CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



RN 100170-01-2 HCAPLUS

CN 2-Formyl-1,3,3-trimethyl-3H-indolium iodide, methyl-p-tolylhydrazone
(7CI) (CA INDEX NAME)● I⁻

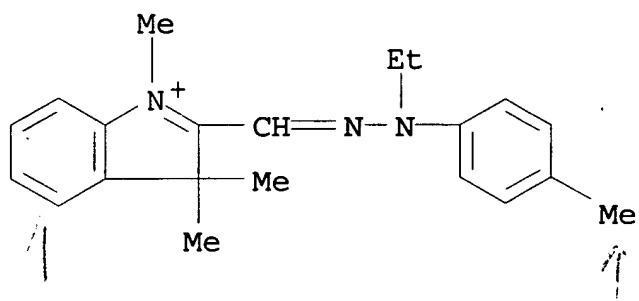
RN 100435-05-0 HCAPLUS

CN 2-Formyl-1,3,3-trimethyl-3H-indolium ethyl sulfate,
ethyl-p-tolylhydrazone (7CI) (CA INDEX NAME)

CM 1

CRN 100435-04-9

CMF C21 H26 N3



CM 2

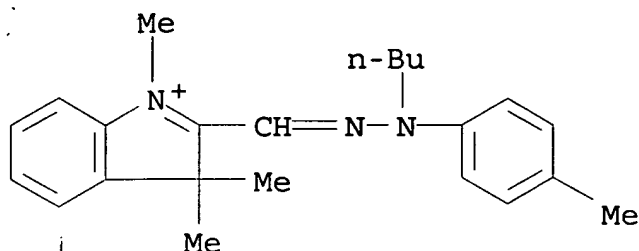
CRN 48028-76-8

CMF C2 H5 O4 S

Et-O-SO₃⁻

RN 100659-58-3 HCAPLUS

CN 2-Formyl-1,3,3-trimethyl-3H-indolium bromide, butyl-p-tolylhydrazone
(7CI) (CA INDEX NAME)



● Br⁻

INCL 22A

CC 46 (Dyes)

IT 9003-01-4, Acrylic acid, homopolymer
(dyes for)

IT 1047-16-1, Quino[2,3-b]acridine-7,14-dione, 5,12-dihydro-
4677-09-2, Indoline, 1,3,3-trimethyl-2-[(phenylazo)methylene]-
7575-42-0, Quino[2,3-b]acridine-7,14-dione, 2,4,9,11-tetrachloro-
5,12-dihydro- 57303-71-6, Indoline, 1,3,3-trimethyl-2-[(p-
tolylazo)methylene]- 92871-06-2, 2(1H)-Pyrimidinone,
3,4-dihydro-1,3,6-trimethyl-4-[(p-tolylazo)methylene]-
92908-53-7, 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-
methylphenyl)hydrazono]methyl]-, salt with 4-methylbenzenesulfonic
acid (1:1) 92908-53-7, 3H-Indolium, 1,3,3-trimethyl-2-
[[methyl(4-methylphenyl)hydrazono]methyl]-, salt with
4-methylbenzenesulfonic acid (1:1) 93016-83-2, Acetanilide,
4'-[[[(2,3-dihydro-1,3,6-trimethyl-2-oxo-4(1H)-
pyrimidinylidene)methyl]azo]- 94065-68-6, 2(1H)-Pyrimidinone,
3,4-dihydro-4-[[[(p-methoxyphenyl)azo]methylene]-1,3,6-trimethyl-
98494-05-4, 2-Formyl-1,3-dimethylbenzimidazolium methyl sulfate,
phenylhydrazone 99003-76-6, 2-Formyl-1-methylquinolinium methyl
sulfate, methylphenylhydrazone 99997-46-3, 6-Formyl-2,3-dihydro-
1,3,4-trimethyl-2-oxopyrimidinium methyl sulfate,
6-[(p-acetamidophenyl)methylhydrazone] 100170-01-2,
2-Formyl-1,3,3-trimethyl-3H-indolium iodide, methyl-p-tolylhydrazone
100170-01-2, 2-Formyl-1,3,3-trimethyl-3H-indolium iodide,
methyl-p-tolylhydrazone 100435-05-0, 2-Formyl-1,3,3-
trimethyl-3H-indolium ethyl sulfate, ethyl-p-tolylhydrazone
100435-05-0, 2-Formyl-1,3,3-trimethyl-3H-indolium ethyl
sulfate, ethyl-p-tolylhydrazone 100659-58-3,
2-Formyl-1,3,3-trimethyl-3H-indolium bromide, butyl-p-tolylhydrazone

100659-58-3, 2-Formyl-1,3,3-trimethyl-3H-indolium bromide,
butyl-p-tolyhydrazone
(prepn. of)

*claim component (1)
and ink/print*

=> d 148 ibib abs hitstr hitind 1-11

L48 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:534007 HCAPLUS
DOCUMENT NUMBER: 141:90612
TITLE: Pigmented **inks** and methods to improve
ink performance
INVENTOR(S): Sun, Jing; Sacoto, Paul J.; Sun, Naiyu
PATENT ASSIGNEE(S): Lexmark International, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004127619	A1	20040701	US 2002-330041	200212 26
✓ US 6896724	B2	20050524	<--	
PRIORITY APPLN. INFO.:			US 2002-330041	200212 26
			<--	

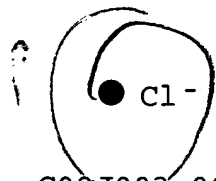
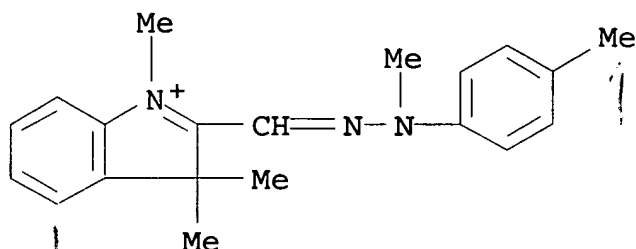
AB The present invention relates to a pigment dispersion and a method of producing a pigment dispersion by grinding a grind mixt. comprising a pigment, a humectant, water, and a polymeric dispersant. The invention also relates to an **ink** compn. comprising an aq. carrier and a pigment dispersion produced by grinding as above. The invention also relates to an **ink** compn. comprising a pigment, a polymeric dispersant, a humectant, a basic dye, an aq. carrier, wherein the pH of the **ink** compn. is less than or equal to 7.

IT 68134-38-3, Astrazon Yellow GRL
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; pigmented **inks** and dispersants for improving

ink performance)

RN 68134-38-3 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, chloride (9CI) (CA INDEX NAME).



not organic acid

IC ICM C08J003-00

INCL 524385000; 524487000

CC 42-12 (Coatings, Inks, and Related Products)

ST ink pigment aq dispersion prodn humectant; basic dye
humectant pigment dispersion ink

IT Dyes

(basic; pigmented inks and dispersants for improving
ink performance)

IT Inks

(jet-printing; pigmented inks and dispersants
for improving ink performance)

IT Dispersing agents

Humectants

Pigments, nonbiological

(pigmented inks and dispersants for improving
ink performance)

IT 147-14-8, C.I.Pigment Blue 15:3

RL: TEM (Technical or engineered material use); USES (Uses)
(Pigment Blue 15, C.I.Pigment Blue 15:4 and; pigmented
inks and dispersants for improving ink
performance)

IT 7732-18-5, Water, uses

RL: NUU (Other use, unclassified); USES (Uses)

(carrier; pigmented inks and dispersants for improving
ink performance)

- IT 713516-20-2P, Methacrylic acid-nonylphenylpolypropylene glycol acrylate-SIPOMER SEM 25 graft copolymer 714200-86-9P, Ethylene oxide-propylene oxide-methacrylic acid graft copolymer nonylphenyl 2,4,6-tris(1-phenylethyl)phenyl ether
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dispersant; pigmented **inks** and dispersants for improving **ink** performance)
- IT 569-61-9, Pararosaniline 989-38-8, Rhodamine 6G 4208-80-4, Sevron Yellow R 11121-48-5, Rose Bengal 12217-50-4, Sevron Yellow L 55840-82-9, Basic Blue 3 68134-38-3, Astrazon Yellow GRL 205057-15-4, Solvent Violet 49 714230-95-2, Sevron Brilliant Red 15 714231-02-4, Intrazol Brilliant Pink 2GL
RL: TEM (Technical or engineered material use); USES (Uses)
(dye; pigmented **inks** and dispersants for improving **ink** performance)
- IT 56-81-5, Glycerol, uses 111-46-6, Diethylene glycol, uses 616-45-5, 2-Pyrrolidone 25265-71-8, Dipropylene glycol
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(humectants; pigmented **inks** and dispersants for improving **ink** performance)
- IT 980-26-7, C.I. Pigment Red 122 12217-49-1, C.I. Basic Red 15 116744-95-7, Astra Blue 6GLL
RL: TEM (Technical or engineered material use); USES (Uses)
(pigment; pigmented **inks** and dispersants for improving **ink** performance)
- IT 111-29-5, 1,5-Pentanediol
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(pigmented **inks** and dispersants for improving **ink** performance)
- IT 314-13-6, C.I. Direct Blue 53 509-34-2, Rhodamine B base 6358-31-2, Pigment Yellow 74 30125-47-4, Pigment Yellow 138 68516-73-4, Pigment Yellow 155 79953-85-8, Pigment Yellow 128
RL: TEM (Technical or engineered material use); USES (Uses)
(pigmented **inks** and dispersants for improving **ink** performance)
- IT 9014-85-1, Surfynol 465 26183-52-8, Iconol DA 6
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(surfactant; pigmented **inks** and dispersants for improving **ink** performance)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR

THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L48 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:892854 HCAPLUS

DOCUMENT NUMBER: 139:382824

TITLE: Pigment compositions, their production and their
use in inks and coatings with improved
rheologyINVENTOR(S): Coughlin, Stephen John; Fraser, Iain Frank;
Healy, Thomas; Niven, Stuart Cook

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003093373	A1	20031113	WO 2003-EP4259	200304 24

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ,
LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ,
NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZWRW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG

CA 2483836	AA	20031113	CA 2003-2483836	200304 24
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AU 2003224122	A1	20031117	AU 2003-224122	200304 24
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EP 1499683

A1

20050126

EP 2003-720522

200304
24

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

BR 2003009630

A

20050308

BR 2003-9630

200304
24

US 2005115464

A1

20050602

US 2003-512013

200304
24

CN 1649972

A

20050803

CN 2003-809577

200304
24

JP 2005523985

T2

20050811

JP 2004-501511

200304
24

PRIORITY APPLN. INFO.:

EP 2002-405349

A

200204
29

WO 2003-EP4259

W

200304
24

AB Pigment compns. comprising an org. pigment and a combination of at least two normally water-sol. colored compds. (dyes) of opposing charge, i.e. of at least one anionic and one cationic dye are provided. The compns. impart improved rheol. and color strength to nonaq. pigment-based **printing inks** and paints.

In an example, C.I. Pigment Yellow 13 was processed with C.I. Basic Yellow 40 and the resulting presscake was used in a **printing ink** varnish.

IT 54060-92-3, C.I. Basic Yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)
(yellow dye; in **printing ink** pigment compns.
with improved rheol. and color strength)

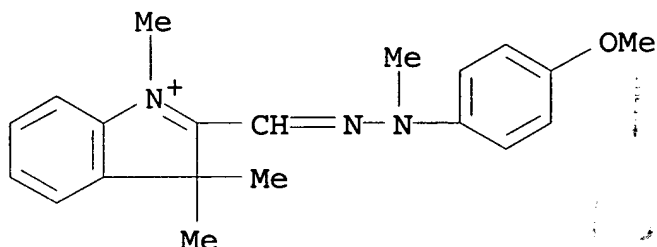
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09B069-02

ICS C09B067-22; C09B067-08; C09D011-02

CC 42-6 (Coatings, Inks, and Related Products)

ST pigment dye combination **printing ink** rheol color improvement

IT Surfactants

(anionic; in **printing ink** pigment compns. with improved rheol. and color strength)

IT Surfactants

(cationic; in **printing ink** pigment compns. with improved rheol. and color strength)

IT Dyes

Pigments, nonbiological

(in **printing ink** pigment compns. with improved rheol. and color strength)

IT Inks

(**printing**; pigment compns. with improved rheol. and

color strength for)

IT 1064-48-8, C.I. Acid Black 1 2538-85-4, C.I. Mordant Black 17
 3071-73-6, C.I. Acid Black 24 4443-99-6, C.I. Basic Black 2
 6363-84-4, C.I. Basic Black 7 17095-24-8, C.I. Reactive Black 5
 RL: TEM (Technical or engineered material use); USES (Uses)

(black dye; in **printing ink** pigment compns.
 with improved rheol. and color strength)

IT 61-73-4, C.I. Basic Blue 9 72-57-1, C.I. Direct Blue 14 92-31-9,
 C.I. Basic Blue 17 116-95-0, C.I. Acid Blue 1 314-13-6, C.I.
 Direct Blue 53 860-22-0, C.I. Acid Blue 74 966-62-1, C.I. Basic
 Blue 6 1934-16-3, C.I. Basic Blue 24 2185-86-6, C.I. Basic Blue
 11 2381-85-3, C.I. Basic Blue 12 2390-60-5, C.I. Basic Blue 7
 2580-56-5, C.I. Basic Blue 26 2610-05-1, C.I. Direct Blue 1
 2650-17-1, C.I. Acid Blue 147 2650-18-2, C.I. Acid Blue 9
 2787-91-9, C.I. Basic Blue 3 2861-02-1, C.I. Acid Blue 45
 3351-05-1, C.I. Acid Blue 113 3486-30-4, C.I. Acid Blue 7
 3521-06-0, C.I. Basic Blue 1 3529-01-9, C.I. Acid Blue 120
 3861-73-2, C.I. Acid Blue 92 4399-55-7, C.I. Direct Blue 71
 4474-24-2, C.I. Acid Blue 80 4569-88-4, C.I. Basic Blue 16
 5850-35-1, C.I. Acid Blue 29 6104-58-1, C.I. Acid Blue 90
 6104-59-2, C.I. Acid Blue 83 6397-02-0, C.I. Acid Blue 129
 6408-78-2, C.I. Acid Blue 25 6424-85-7, C.I. Acid Blue 40
 12221-38-4, C.I. Basic Blue 66 12225-39-7, C.I. Reactive Blue 15
 12236-82-7, C.I. Reactive Blue 2 12270-13-2, C.I. Basic Blue 41
 13324-20-4, C.I. Reactive Blue 4

RL: TEM (Technical or engineered material use); USES (Uses)

(blue dye; in **printing ink** pigment compns.
 with improved rheol. and color strength)

IT 81-77-6, C.I. Pigment Blue 60 147-14-8, C.I. Pigment Blue 15:1
 RL: TEM (Technical or engineered material use); USES (Uses)

(blue pigment; in **printing ink** pigment
 compns. with improved rheol. and color strength)

IT 569-64-2, C.I. Basic Green 4 633-03-4, C.I. Basic Green 1
 2679-01-8, C.I. Basic Green 5 3087-16-9, C.I. Acid Green 50
 4403-90-1, C.I. Acid Green 25 4680-78-8, C.I. Acid Green 3
 5141-20-8, C.I. Acid Green 5 6408-57-7, C.I. Acid Green 27
 19381-50-1, C.I. Acid Green 1

RL: TEM (Technical or engineered material use); USES (Uses)

(green dye; in **printing ink** pigment compns.
 with improved rheol. and color strength)

IT 1328-24-1, C.I. Acid Black 48 1328-53-6, C.I. Pigment Green 7
 8004-87-3, C.I. Basic Violet 1 12217-50-4, C.I. Basic Yellow 13
 12221-31-7, C.I. Basic Blue 57 12221-52-2, C.I. Basic Red 22
 12221-86-2, C.I. Basic Yellow 40 12270-28-9, C.I. Basic Red 54
 12270-30-3, C.I. Basic Violet 35 12768-80-8, C.I. Basic Blue 40

12768-85-3, C.I. Basic Yellow 19 14302-13-7, C.I. Pigment Green 36
 17814-20-9, C.I. Pigment Red 52:3 28901-96-4, Copper
 phthalocyanine monosulfonic acid 61356-35-2, C.I. Basic Blue 80
 61847-53-8, C.I. Basic Yellow 45 61951-43-7, C.I. Basic Yellow 53
 68610-86-6, C.I. Pigment Yellow 127 71838-81-8, C.I. Basic Yellow
 61 71838-82-9, C.I. Basic Yellow 63 71872-32-7, C.I. Basic
 Orange 54 71902-04-0, C.I. Basic Yellow 17 73560-47-1, C.I.
 Basic Blue 123 80802-82-0, C.I. Basic Yellow 73 90268-24-9, C.I.
 Pigment Yellow 176 95660-16-5, C.I. Direct Yellow 62
 105953-73-9, C.I. Basic Blue 159 623148-13-0, Direct Yellow 172
 RL: TEM (Technical or engineered material use); USES (Uses)

(in **printing ink** pigment compns. with
 improved rheol. and color strength)

IT 65-61-2, C.I. Basic Orange 14 532-82-1, C.I. Basic Orange 2
 547-57-9, C.I. Acid Orange 6 547-58-0, C.I. Acid Orange 52
 633-96-5, C.I. Acid Orange 7 1934-20-9, C.I. Acid Orange 12
 1936-15-8, C.I. Acid Orange 10 3056-93-7, C.I. Basic Orange 21
 5850-86-2, C.I. Acid Orange 8 8003-88-1, C.I. Acid Orange 51
 10127-27-2, C.I. Acid Orange 74 15792-50-4, C.I. Acid Orange 63
 20262-58-2, C.I. Reactive Orange 16

RL: TEM (Technical or engineered material use); USES (Uses)

(orange dye; in **printing ink** pigment compns.
 with improved rheol. and color strength)

IT 6505-28-8, C.I. Pigment Orange 16 15793-73-4, C.I. Pigment Orange
 34

RL: TEM (Technical or engineered material use); USES (Uses)

(orange pigment; in **printing ink** pigment
 compns. with improved rheol. and color strength)

IT 477-73-6, C.I. Basic Red 2 479-73-2, C.I. Basic Red 9 553-24-2,
 C.I. Basic Red 5 573-58-0, C.I. Direct Red 28 915-67-3, C.I.
 Acid Red 27 989-38-8, C.I. Basic Red 1 992-59-6, C.I. Direct Red
 2 1658-56-6, C.I. Acid Red 88 2610-10-8, C.I. Direct Red 80
 2610-11-9, C.I. Direct Red 81 2611-82-7, C.I. Acid Red 18
 2766-77-0, C.I. Acid Red 44 2829-43-8, C.I. Direct Red 75
 3441-14-3, C.I. Direct Red 23 3520-42-1, C.I. Acid Red 52
 3567-69-9, C.I. Acid Red 14 3648-36-0, C.I. Basic Red 13
 3734-67-6, C.I. Acid Red 1 3761-53-3, C.I. Acid Red 26
 4196-99-0, C.I. Acid Red 66 4197-07-3, C.I. Acid Red 29
 4787-93-3, C.I. Acid Red 8 5413-75-2, C.I. Acid Red 73
 5858-33-3, C.I. Acid Red 17 5858-39-9, C.I. Acid Red 4
 5873-16-5, C.I. Acid Red 50 6226-78-4, C.I. Acid Red 150
 6360-07-2, C.I. Acid Red 37 6406-56-0, C.I. Acid Red 151
 6408-31-7, C.I. Acid Red 183 6411-47-8, C.I. Basic Red 10
 6459-94-5, C.I. Acid Red 114 10169-02-5, C.I. Acid Red 97
 12221-69-1, C.I. Basic Red 46 16423-68-0, C.I. Acid Red 51

17681-50-4, C.I. Reactive Red 4 17804-49-8, C.I. Reactive Red 2
25360-72-9, C.I. Acid Red 103 42373-04-6, C.I. Basic Red 29

RL: TEM (Technical or engineered material use); USES (Uses)

(red dye; in **printing ink** pigment compns.

with improved rheol. and color strength)

IT 1103-38-4, C.I. Pigment Red 49:1 3089-17-6, C.I. Pigment Red 202
5160-02-1, C.I. Pigment Red 53:1 5280-66-0, C.I. Pigment Red 48:4
5281-04-9, C.I. Pigment Red 57:1 6371-76-2, C.I. Pigment Red 64:1
6417-83-0, C.I. Pigment Red 63:1 7023-61-2, C.I. Pigment Red 48:2
7538-59-2, C.I. Pigment Red 58:2 7585-41-3, C.I. Pigment Red 48:1
12238-31-2, C.I. Pigment Red 52:2 15782-05-5, C.I. Pigment Red
48:3 17852-98-1, C.I. Pigment Red 57:2 17852-99-2, C.I. Pigment
Red 52:1 64552-28-9, C.I. Pigment Red 58:4 67990-35-6, C.I.
Pigment Red 53:2 71832-83-2, C.I. Pigment Red 48:5 73263-40-8,
C.I. Pigment Red 53:3

RL: TEM (Technical or engineered material use); USES (Uses)

(red pigment; in **printing ink** pigment compns.

with improved rheol. and color strength)

IT 2211-98-5, Sodium p-dodecylbenzenesulfonate 32713-54-5
78952-69-9

RL: TEM (Technical or engineered material use); USES (Uses)

(surfactant; in **printing ink** pigment compns.

with improved rheol. and color strength)

IT 81-88-9, C.I. Basic Violet 10 548-62-9, C.I. Basic Violet 3
2092-55-9, C.I. Mordant Violet 5 2390-59-2, C.I. Basic Violet 4
3248-91-7, C.I. Basic Violet 2 4129-84-4, C.I. Acid Violet 17
4321-69-1, C.I. Acid Violet 7 25188-53-8, C.I. Direct Violet 51

RL: TEM (Technical or engineered material use); USES (Uses)

(violet dye; in **printing ink** pigment compns.

with improved rheol. and color strength)

IT 91-34-9, C.I. Direct Yellow 4 587-98-4, C.I. Acid Yellow 36
846-70-8, C.I. Acid Yellow 1 1829-00-1, C.I. Direct Yellow 9
1934-21-0, C.I. Acid Yellow 23 2390-54-7, C.I. Basic Yellow 1
2465-27-2, C.I. Basic Yellow 2 2706-28-7, C.I. Acid Yellow 9
2870-32-8, C.I. Direct Yellow 12 3214-47-9, C.I. Direct Yellow 50
4208-80-4, C.I. Basic Yellow 11 6359-50-8, C.I. Basic Yellow 21
6359-82-6, C.I. Acid Yellow 11 6359-85-9, C.I. Acid Yellow 25
6359-88-2, C.I. Acid Yellow 76 6359-90-6, C.I. Acid Yellow 34
6359-91-7, C.I. Acid Yellow 29 6359-98-4, C.I. Acid Yellow 17
6375-55-9, C.I. Acid Yellow 42 10127-05-6, C.I. Acid Yellow 54
10130-29-7, C.I. Direct Yellow 8 10190-68-8, C.I. Direct Yellow 27
10343-58-5, C.I. Acid Yellow 99 12220-88-1, C.I. Acid Yellow 169
50662-99-2, C.I. Reactive Yellow 2 52435-14-0, C.I. Basic Yellow
24 54060-92-3, C.I. Basic Yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)

(yellow dye; in printing ink pigment compns.
with improved rheol. and color strength)

IT 2512-29-0, C.I. Pigment Yellow 1 4531-49-1, C.I. Pigment Yellow 17
5102-83-0, C.I. Pigment Yellow 13 5468-75-7, C.I. Pigment Yellow
14 5567-15-7, C.I. Pigment Yellow 83 6358-31-2, C.I. Pigment
Yellow 74 6358-85-6, C.I. Pigment Yellow 12 6407-75-6, C.I.
Pigment Yellow 10 6486-26-6, C.I. Pigment Yellow 2 6528-34-3,
C.I. Pigment Yellow 65 12286-65-6, C.I. Pigment Yellow 61
12286-66-7, C.I. Pigment Yellow 62 13515-40-7, C.I. Pigment Yellow
73 14569-54-1, C.I. Pigment Yellow 63 23792-68-9, C.I. Pigment
Yellow 188 52320-66-8, C.I. Pigment Yellow 75 71832-85-4, C.I.
Pigment Yellow 168 78952-72-4, C.I. Pigment Yellow 174
129423-54-7, C.I. Pigment Yellow 191

RL: TEM (Technical or engineered material use); USES (Uses)

(yellow pigment; in printing ink pigment
compns. with improved rheol. and color strength)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

EL48 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:255115 HCAPLUS

DOCUMENT NUMBER: 138:256696

TITLE: Cationic water-soluble polymer-containing
ink-jet inks

INVENTOR(S): Matzinger, Michael D.; Hutter, G. Frederick

PATENT ASSIGNEE(S): Westvaco Corporation, USA

SOURCE: U.S., 7 pp., Cont.-in-part of U.S. Ser. No.
140,997, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6541538	B1	20030401	US 1998-167878	199810 07

PRIORITY APPLN. INFO.:

<--
US 1998-140997 B2
199808
26

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AB Title **inks** with improved color-fastness and adhesion is composed of colorants, such as pigment or dye, 40-80 wt.% carrier medium consisting of water or org. solvent selected from amine, amide, carboxylic acid, ~~ester~~, ether, etc., 1-40 wt.% cationic water-sol. polymer with Mw of 3000-30,000 prepd. by three monomers: N-vinylpyrrolidinone, acrylamide, and $\text{CH}_2=\text{C}(\text{R})\text{COY}(\text{CH}_2)_n\text{N}^+\text{R}'\text{R}''\text{R}'''\text{X}^-$ (R = H/Me, Y = O/NH, n = 1-4 integer, X = anion such as Cl, Br, tosylate, or alkylsulfate, R', R'', R''' = C1-18 alkyl and aralkyl), which is obtained by reacting tertiary amine-contg. monomer with an alkylating agent, such as alkyl halides, sulfate, and tosylate. Thus, N-vinylpyrrolidinone, N-methylolacrylamide, and dimethylaminoethyl methacrylate were radically polymd. in iso-Pr alc., followed by reacting with benzyl bromide to receive cationic polymer that can be used as component of **ink-jet inks**.

IT 54060-92-3, Basic yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; cationic water-sol. polymer-contg. **ink-jet inks**)

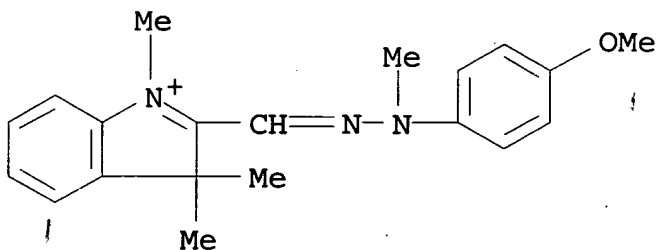
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09D011-10
ICS C08F226-10; C08F226-02; C08F220-58; C08L039-00; C08L039-06
INCL 523160000; 524555000; 526264000; 526304000
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 37
ST cationic water soluble polymer colorant carrier medium **ink**
jet; Vinylpyrrolidinone methylolacrylamide dimethylaminoethyl
methacrylate copolymer benzyl bromide **ink**
IT Alcohols, uses
Amides, uses
Amines, uses
Carboxylic acids, uses
Esters, uses
Ethers, uses
Glycols, uses
Ketones, uses
Lactams
Lactones
Sulfones
Sulfoxides
RL: TEM (Technical or engineered material use); USES (Uses)
(carrier medium; cationic water-sol. polymer-contg. **ink**
-jet **inks**)
IT Dyes
Pigments, nonbiological
(cationic water-sol. polymer-contg. **ink-jet**
inks)
IT Glycols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(esters, carrier medium; cationic water-sol. polymer-contg.
ink-jet inks)
IT Glycols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(ethers, carrier medium; cationic water-sol. polymer-contg.
ink-jet inks)
IT Ethers, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(glycol, carrier medium; cationic water-sol. polymer-contg.
ink-jet inks)
IT **Inks**
(jet-printing, water-thinned; cationic water-sol.

- polymer-contg. ink-jet inks)
- IT Sulfides, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(org., carrier medium; cationic water-sol. polymer-contg. ink-jet inks)
- IT Solvents
(org.; cationic water-sol. polymer-contg. ink-jet inks)
- IT Polymers, uses
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(water-sol., cationic; cationic water-sol. polymer-contg. ink-jet inks)
- IT 56-81-5, Glycerine, uses 64-17-5, Ethyl alcohol, uses 67-56-1, Methyl alcohol, uses 67-63-0, Isopropyl alcohol, uses 67-64-1, Acetone, uses 67-68-5, Dimethyl sulfoxide, uses 67-71-0, Dimethylsulfone 68-12-2, Dimethylformamide, uses 71-23-8, Propyl alcohol, uses 71-36-3, Butyl alcohol, uses 75-65-0, tert-Butyl alcohol, uses 78-92-2, sec-Butyl alcohol 78-93-3, Methyl ethyl ketone, uses 96-48-0, Butyrolactone 96-49-1, Ethylene carbonate 97-64-3, Ethyl lactate 107-21-1, Ethylene glycol, uses 109-99-9, THF, uses 110-91-8, Morpholine, uses 123-91-1, Dioxane, uses 127-19-5, Dimethylacetamide 141-43-5, Ethanolamine, uses 141-78-6, Ethyl acetate, uses 1600-44-8, Tetramethylene sulfoxide 4789-07-5 7732-18-5, Water, uses 19797-09-2, N-Isopropylcaprolactam
RL: TEM (Technical or engineered material use); USES (Uses)
(carrier medium; cationic water-sol. polymer-contg. ink-jet inks)
- IT 100-39-ODP, Benzyl bromide, reaction products with tertiary amine-contg. acrylic polymers 406945-62-8DP, N-Vinyl-2-pyrrolidinone-N-methylolacrylamide-(2-dimethylamino)ethyl methacrylate copolymer, reaction products with benzyl bromide 406946-54-1P, N-Vinyl-2-pyrrolidinone-N-methylolacrylamide-Mhoromer BM 606 copolymer
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(cationic water-sol. polymer-contg. ink-jet inks)
- IT 616-45-5, 2-Pyrrolidinone 502761-98-0, Liponic 7EG1
RL: TEM (Technical or engineered material use); USES (Uses)
(cationic water-sol. polymer-contg. ink-jet inks)
- IT 2580-56-5, Basic blue 26
RL: TEM (Technical or engineered material use); USES (Uses)

(dye, C. I. 44045; cationic water-sol. polymer-contg. ink
-jet inks)

IT 81-88-9, Basic violet 10

RL: TEM (Technical or engineered material use); USES (Uses)
(dye, C. I. 45170; cationic water-sol. polymer-contg. ink
-jet inks)

IT 532-82-1, Basic orange 2 633-03-4, Basic green 1 989-38-8, Basic
red 1 2390-60-5, Basic blue 7 2390-63-8, Basic violet 11
3521-06-0, Basic blue 1 8004-87-3, Basic violet 1 12217-48-0,
Basic red 14 54060-92-3, Basic yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)
(dye; cationic water-sol. polymer-contg. ink-jet
inks)

IT 81-77-6, C.I. Vat blue 4 130-20-1, C.I. Vat blue 6 574-93-6,
C.I. Pigment blue 16 980-26-7, C.I. Pigment red 122 1325-87-7,
C.I. Pigment blue 1 1325-94-6, C.I. Pigment blue 2 1344-28-1,
Alumina, uses 2512-29-0, C.I. Pigment yellow 1 5102-83-0, C.I.
Pigment yellow 13 6410-32-8, C.I. Pigment red 12 6410-41-9, C.I.
Pigment red 5 6471-51-8, C.I. Pigment red 7 6486-23-3, C.I.
Pigment yellow 3 6535-46-2, C.I. Pigment red 112 7440-50-8,
Copper, uses 7631-86-9, Silica, uses 13463-67-7, Titania, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(pigment; cationic water-sol. polymer-contg. ink-jet
inks)

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L48 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:712297 HCAPLUS

DOCUMENT NUMBER: 129:303800

TITLE: Water base ink sets for ink
-jet recording

INVENTOR(S): Ohta, Hitoshi; Kitamura, Kazuhiko

PATENT ASSIGNEE(S): Seiko Epson Corp., Japan

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
-----	----	-----	-----	-----

WO 9846685

A1

19981022

WO 1998-JP1738

199804
16

<--

W: JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE

EP 911374

A1

19990428

EP 1998-914044

199804
16

<--

EP 911374

B1

20041117

R: CH, DE, FR, GB, IT, LI, NL, SE

JP 3511626

B2

20040329

JP 1998-539457

199804
16

<--

US 6211265

B1

20010403

US 1998-212960

199812
16

<--

PRIORITY APPLN. INFO.:

JP 1997-99474

A

199704
16

<--

WO 1998-JP1738

W

199804
16

<--

AB The ink sets comprise black, yellow, magenta, and cyan inks, which each comprises a colorant, a water-sol. cationic polymer having primary amino groups in the mol., and water, wherein the colorant consists of ≥ 1 compd. selected from the group consisting of anthraquinone class, indigoid class, phthalocyanine class, carbonium class, quinoneimine class, methine class, quinoline class, nitro class, nitroso class, benzoquinone class, naphthoquinone class, naphthalimide class, and perinone class. A combination of a colorant belonging to any of the above classes with a polyallylamine having highly reactive primary amino groups, when added to ink, realizes a full-color image having satisfactory light resistance while retaining the high water resistance attributable to the addn. of polyallylamine. These colorants are not decompd. by the attack of primary amino groups of the polyallylamine and have excellent storage stability.

IT 54060-92-3, C.I. Basic Yellow 28

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(water-thinned **ink** sets for **ink**-jet recording
with good water and light resistance)

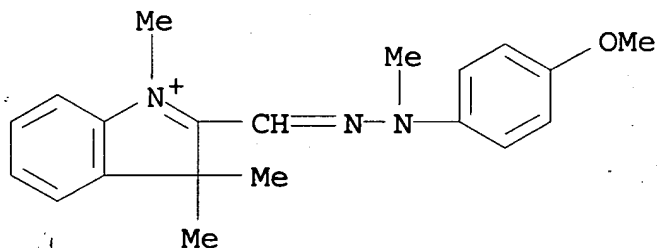
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09D011-02

ICS B41M002-01

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41, 74

ST color **printing ink** set; water thinned jet
ink set; light water resistance jet **ink**; storage
stability colorant jet **ink**

IT **Inks**

(jet-**printing**, water-thinned; water-thinned **ink**
sets for **ink**-jet recording with good water and light
resistance)

IT Coloring materials

Dyes

Ink-jet printing

(water-thinned **ink** sets for **ink-jet** recording
with good water and light resistance)

IT Polyamines

RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(water-thinned **ink** sets for **ink-jet** recording
with good water and light resistance)

IT 122159-49-3, Polyallylamine, hydrochloride salt

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(PAA-D 41 HCl; water-thinned **ink** sets for **ink**
-jet recording with good water and light resistance)

IT 26336-38-9P, Polyvinylamine 72018-12-3DP, Polyvinylformamide,
hydrolyzed

RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)

(water-thinned **ink** sets for **ink-jet** recording
with good water and light resistance)

IT 846-70-8, C.I. Acid Yellow 1 1328-24-1, C.I. Acid Black 48
1330-38-7, C.I. Direct Blue 86 2391-30-2, C.I. Acid Yellow 7
2580-78-1, C.I. Reactive Blue 19 2611-80-5, C.I. Acid Red 82
3520-42-1, C.I. Acid Red 52 6424-85-7, C.I. Acid Blue 40
8005-03-6, C.I. Acid Black 2 9002-98-6 12224-98-5, C.I. Pigment
Red 81 30551-89-4, PAA-L 54060-92-3, C.I. Basic Yellow
28 83027-46-7, Suminol Fast Red G 105417-81-0, Solar Pure Yellow
8G 204719-79-9, Danfix 723

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(water-thinned **ink** sets for **ink-jet** recording
with good water and light resistance)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L48 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:1290 HCAPLUS

DOCUMENT NUMBER: 128:76711

TITLE: Thermal transfer **ink** ribbons and using
the same

INVENTOR(S): Ito, Kengo; Hida, Masanobu; Isaji, Kaori

PATENT ASSIGNEE(S): Sony Corp., Japan

SOURCE: U.S., 24 pp., Cont.-in-part of U.S. Ser. No.
336,155, abandoned.

DOCUMENT TYPE: CODEN: USXXAM
LANGUAGE: Patent
FAMILY ACC. NUM. COUNT: English
PATENT INFORMATION: 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5698490	A	19971216	US 1995-506146	199507 24
<--				
PRIORITY APPLN. INFO.: US 1993-95877				B2 199307 22
<--				
US 1994-336155				B2 199411 08
<--				

OTHER SOURCE(S): MARPAT 128:76711

AB When the counter ion of hydrophilic cationic dyes is substituted with an org. anion including a sulfosuccinate anion such as diethylhexylsulfonate anion, an alkylbenzenesulfonate anion such as a dodecylbenzenesulfonate, an alkyl sulfate anion such as a lauryl sulfate anion, or a soap anion such as a lauryl sulfate anion, the cationic dyes are imparted with hydrophobicity. An ink layer contg. the hydrophobic cationic dye is formed on a support to provide a thermal transfer ink ribbon. Thus, C.I. Basic Yellow 28 (I) was treated with Na diethylhexyl sulfosuccinate to give I diethylhexyl sulfosuccinate and mixed (1 part) with poly(vinyl butyral) 1, toluene 12, and MEK 12 parts to prep. an ink.

IT 83949-75-1, C.I. Basic Yellow 51

RL: RCT (Reactant); RACT (Reactant or reagent)

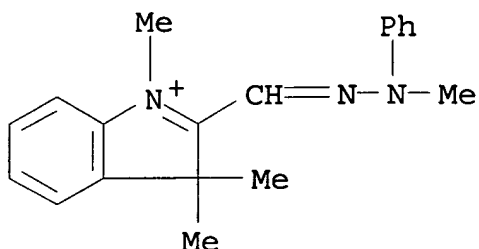
(Diacryl Yellow 3G-N; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer ink ribbons)

RN 83949-75-1 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[(methylphenylhydrazono)methyl]-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 65121-72-4
CMF C19 H22 N3



CM 2

CRN 21228-90-0
CMF C H3 O4 S

Me-O-SO₃⁻

IT 54060-92-3, C.I. Basic Yellow 28

RL: RCT (Reactant); RACT (Reactant or reagent)

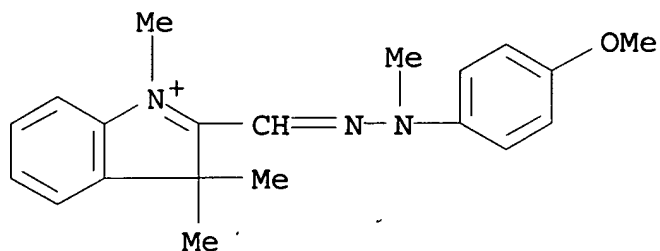
(reaction of hydrophilic cationic dyes with anionic surfactants
for hydrophobic cationic dyes for thermal transfer ink
ribbons)

RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8
CMF C20 H24 N3 O



CM # 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻IT 153952-24-0P 153952-25-1P 153952-26-2P
200556-88-3PRL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermal transfer **ink** ribbons contg. hydrophobic cationic dye)

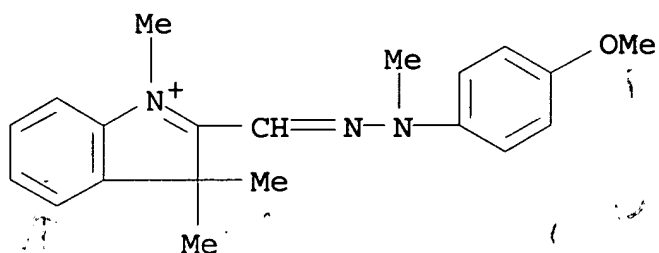
RN 153952-24-0 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, salt with 1,4-bis(2-ethylhexyl) sulfobutanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

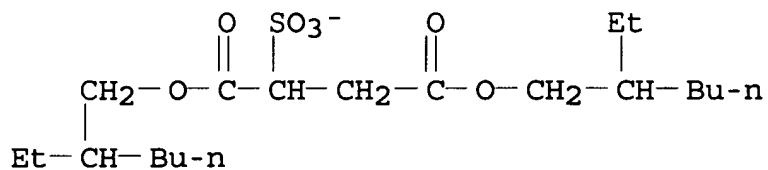
CMF C20 H24 N3 O



CM 2

CRN 45297-26-5

CMF C20 H37 O7 S



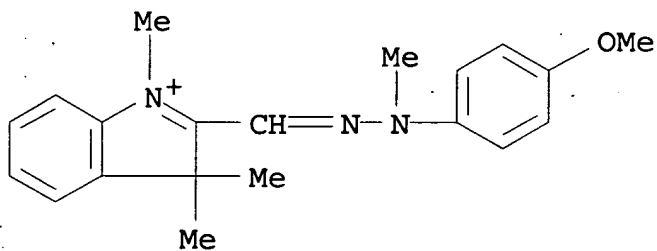
RN 153952-25-1 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, salt with dodecylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O

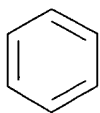


CM 2

CRN 1330-69-4

CMF C18 H29 O3 S

CCI IDS

D1- SO₃⁻Me- (CH₂)₁₁-D1

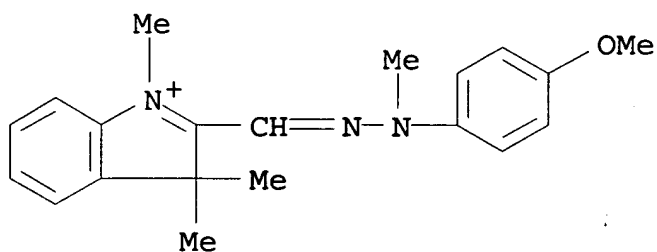
RN 153952-26-2 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, dodecyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 557-47-1

CMF C12 H25 O4 S

Me- (CH₂)₁₁-O- SO₃⁻

RN 200556-88-3 HCAPLUS

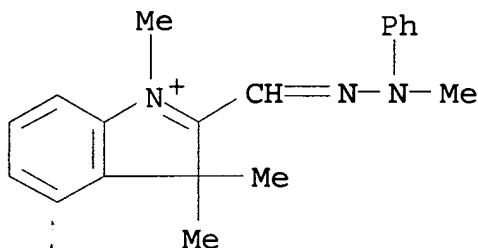
CN 3H-Indolium, 1,3,3-trimethyl-2-[(methylphenylhydrazono)methyl]-,

dodecyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 65121-72-4

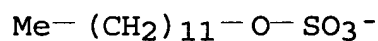
CMF C19 H22 N3



CM 2

CRN 557-47-1

CMF C12 H25 O4 S



IC ICM B41M005-035

ICS B41M005-38

INCL 503227000

CC 42-12 (Coatings, Inks, and Related Products)

Section cross-reference(s): 41

ST hydrophobic cationic dye **ink** ribbon; thermal transfer **printing** ribbon

IT Surfactants

(anionic; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT Dyes

(cationic; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT Thermal-transfer **printing** materials

(**inks**; thermal transfer **ink** ribbons contg. hydrophobic cationic dye)

- IT **Inks**
(**printing**, thermal-transfer; thermal transfer
ink ribbons contg. hydrophobic cationic dye)
- IT Hydrophilicity
Hydrophobicity
(reaction of hydrophilic cationic dyes with anionic surfactants
for hydrophobic cationic dyes for thermal transfer **ink**
ribbons)
- IT Optical absorption
Printer ribbons
(thermal transfer **ink** ribbons contg. hydrophobic
cationic dye)
- IT 3648-36-0, C.I. Basic Red 13
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Pink FGH; reaction of hydrophilic cationic dyes
with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 55840-82-9, C.I. Basic Blue 3
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Pure Blue 5GH; reaction of hydrophilic cationic
dyes with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 12217-48-0, C.I. Basic Red 14
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Red 4GH; reaction of hydrophilic cationic dyes
with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 6441-82-3, C.I. Basic Violet 7
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Red 6GH; reaction of hydrophilic cationic dyes
with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 6359-50-8, C.I. Basic Yellow 21
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Yellow 7GLH; reaction of hydrophilic cationic
dyes with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 80802-82-0, C.I. Basic Yellow 73
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Yellow CD-RLH; reaction of hydrophilic cationic
dyes with anionic surfactants for hydrophobic cationic dyes for
thermal transfer **ink** ribbons)
- IT 12221-83-9, C.I. Basic Yellow 36
RL: RCT (Reactant); RACT (Reactant or reagent)
(Aizen Cathilon Yellow K 3RLH; reaction of hydrophilic cationic

dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT 83949-75-1, C.I. Basic Yellow 51

RL: RCT (Reactant); RACT (Reactant or reagent)

(Diacryl Yellow 3G-N; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT 12221-43-1, C.I. Basic Blue 75

RL: RCT (Reactant); RACT (Reactant or reagent)

(Kayacryl Light Blue 4GSL; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT 68893-92-5, C.I. Basic Yellow 67

RL: RCT (Reactant); RACT (Reactant or reagent)

(Kayacryl Yellow 3RL; reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT 151-21-3, Sodium lauryl sulfate, reactions 577-11-7 25155-30-0, Sodium dodecylbenzenesulfonate 54060-92-3, C.I. Basic Yellow 28

RL: RCT (Reactant); RACT (Reactant or reagent)

(reaction of hydrophilic cationic dyes with anionic surfactants for hydrophobic cationic dyes for thermal transfer **ink** ribbons)

IT 153952-24-0P 153952-25-1P 153952-26-2P

153952-27-3P 153952-28-4P 153952-30-8P 153952-31-9P

154277-40-4P 154277-41-5P 154277-43-7P 154277-45-9P

194363-62-7P 200556-88-3P 200556-90-7P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermal transfer **ink** ribbons contg. hydrophobic cationic dye)

L48 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:312279 HCAPLUS

DOCUMENT NUMBER: 122:92885

TITLE: Substrates bearing information which is protected against unauthorized copying and method for forming them

INVENTOR(S): Berneth, Horst; Claussen, Uwe

PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4236143	A1	19940428	DE 1992-4236143	199210 26
EP 609493	A1	19940810	EP 1993-116545	199310 13
EP 609493	B1	19990113		
R: CH, DE, FR, GB, IT, LI				
US 5425978	A	19950620	US 1993-139494	199310 19
Check				
PRIORITY APPLN. INFO.:			DE 1992-4236143	A 199210 26

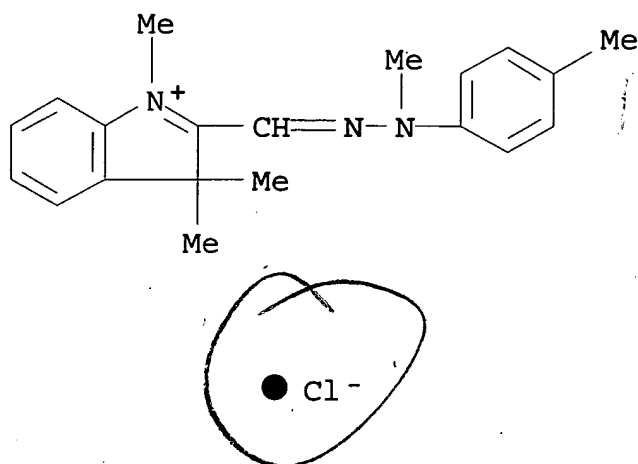
AB Substrates are described on which information is written using a combination of ≥ 1 emitting and ≥ 1 re-emitting coloring agent with nuances of color which do not visibly differ under conditions which produce no noticeable fluorescence, the emitting and re-emitting coloring agents being used to inscribe the information so that they are in contact or closely adjacent. The substrates are prepd. by writing the information using the above described coloring agents. If an attempt is made to photocopy the information, the copy is unreadable due the effect of the fluorescent emissions on the copier sensors.

IT 68134-38-3

RL: TEM (Technical or engineered material use); USES (Uses)
(fluorescent pigments combination for protection against unauthorized copying)

RN 68134-38-3 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl(4-methylphenyl)hydrazono]methyl]-, chloride (9CI) (CA INDEX NAME)



IC ICM B44F001-12
 ICS D21H021-40; B41M003-14; G03B027-52; B42D015-00; G09F003-03
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 ST substrate information protected unauthorized copying; fluorescent
 pigment **printing ink** copying protection
 IT **Inks**
 (fluorescent pigments combination for protection against
 unauthorized copying)
 IT Fluorescent substances
 (**printed** material protected against unauthorized
 copying and method for forming them)
 IT 3648-36-0 4607-03-8 6359-45-1 6359-50-8 12217-48-0
 29556-33-0 35773-43-4 **68134-38-3** 160453-08-7
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fluorescent pigments combination for protection against
 unauthorized copying)

L48 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:658084 HCAPLUS
 DOCUMENT NUMBER: 121:258084
 TITLE: Preventing clogging of nozzles in drop-on-demand
ink-jet printers during
 nonprinting intervals
 INVENTOR(S): Vonasek, Jiri; Tunius, Mats Anders Robert;
 Rydinge, Klas
 PATENT ASSIGNEE(S): Markpoint Development AB, Swed.
 SOURCE: PCT Int. Appl., 16 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9403546 ^Z	A1	19940217	WO 1993-EP2005	199307 27
<--				
W: JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
SE 9202243	A	19940129	SE 1992-2243	199207 28
<--				
SE 500595	C2	19940718		
EP 652913	A1	19950517	EP 1993-917673	199307 27
<--				
EP 652913	B1	19961016		
R: DE, FR, GB, IT, SE				
JP 08501330	T2	19960213	JP 1993-504973	199307 27
<--				
PRIORITY APPLN. INFO.:			SE 1992-2243	A 199207 28
<--				
			WO 1993-EP2005	W 199307 27
<--				

AB The clogging of the title **printers** is prevented by using an **ink** contg. (a) ≥ 1 solvent, (b) a non- or low-volatile liq. miscible to a certain extent in ≥ 1 solvent, and (c) a colorant that is sol. and(or) dispersible in the (a)-(b) mixt. but insol. in (b) alone. The relative quantities and soly. of the constituents are selected such that when **printing** terminates and a portion of the solvent evaps. at the nozzle orifice, a concn. of (c) and (b) builds up in the region of the

nozzle orifice. This causes the (c) to migrate to an environment in which its affinity is greater, i.e. further within the nozzle.

Typical **inks** contained water 0-15, ethylene glycol 5-20, EtOH 10-40, MEK 0-50, and Pro Jet Black MEK 10-60%.

IT **54060-92-3**, C.I. Basic Yellow 28

RL: NUJ (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(Astrazon Golden Yellow GL FW; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

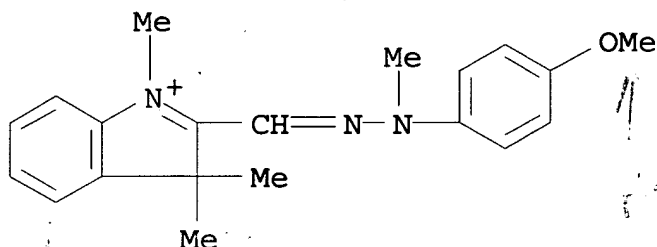
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)

ST jet **printing ink** nonclogging; MEK solvent jet **printing ink**; ethanol solvent jet **printing ink**; ethylene glycol solvent jet **printing ink**

- IT Dyes
Pigments
Solvents
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT Carbon black, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT Alcohols, uses
Amides, uses
Esters, uses
Ketones, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT Alcohols, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(amino, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT Ethers, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(glycol, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT **Inks**
(jet-printing, preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT Alcohols, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(polyhydric, solvents; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT **54060-92-3, C.I. Basic Yellow 28**
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(Astrazon Golden Yellow GL FW; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during

- nonprinting intervals)
- IT 12237-22-8, C.I. Solvent Black 27
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(Duasyn Black A-RGVP 280; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT 12222-04-7, C.I. Direct Blue 199
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(Levacel Fast Turquoise Blue BLN; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT 7786-30-3, Magnesium chloride, uses 10043-52-4, Calcium chloride, uses
RL: MOA (Modifier or additive use); USES (Uses)
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT 4197-25-5 12239-74-6, Savinyl Fire Red 3GLS 116410-83-4, C.I. Solvent Black 47
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)
- IT 56-81-5, 1,2,3-Propanetriol, uses 64-17-5, Ethanol, uses 67-64-1, Acetone, uses 71-23-8, 1-Propanol, uses 75-12-7, Formamide, uses 78-93-3, MEK, uses 102-71-6, uses 107-21-1, 1,2-Ethanediol, uses 108-10-1, MIBK 141-78-6, Acetic acid ethyl ester, uses 7732-18-5, Water, uses
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)
(solvent; preventing clogging of nozzles in drop-on-demand **ink-jet printers** during nonprinting intervals)

L48 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:215087 HCAPLUS
DOCUMENT NUMBER: 118:215087
TITLE: **Jet-printing inks**
INVENTOR(S): Sano, Yukari; Hayashi, Hiroko; Takemoto, Kiyohiko; Oki, Yasuhiro
PATENT ASSIGNEE(S): Seiko Epson Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04332773	A2	19921119	JP 1991-102665	19910508

PRIORITY APPLN. INFO.:

JP 1991-102665

19910508

AB Title **inks**, storage-stable and antifeathering with good applicability to ordinary paper, comprise a dispersion of carbon black in an alk. soln. of basic dyes. Thus, a compn. of MA 7 4, C.I. Basic Yellow 0.4, KOH 1, glycerol 20, and H2O 74.6% was antifeathering when 1 μ L was dropped on ordinary **printing** paper and showed no pptn. when stored at 70° for 1 mo.

IT 54060-92-3, C.I. Basic Yellow 28

RL: TEM (Technical or engineered material use); USES (Uses)
(**jet-printing inks** contg., storage-stable, antifeathering)

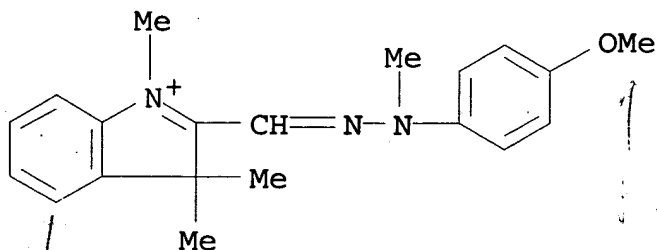
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O

H2O based

CM 2

CRN 21228-90-0
CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM C09D011-00
ICS C09D011-02
CC 42-12 (Coatings, Inks, and Related Products)
ST jet **printing ink** stability antifeathering;
storage stability jet **printing ink**; carbon black
jet **printing ink**; dye basic jet **printing ink**
IT Bases, uses
Carbon black, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(jet-**printing inks** contg., storage-stable,
antifeathering)
IT Dyes
(basic, jet-**printing inks** contg.,
storage-stable, antifeathering)
IT **Inks**
(jet-**printing**, contg. basic dyes and carbon black,
storage-stable, antifeathering)
IT 102-71-6, Triethanolamine, uses 1310-58-3, Potassium hydroxide,
uses 1310-65-2, Lithium hydroxide 12221-73-7, C.I. Basic Violet
27 12221-77-1, C.I. Basic Yellow 14 54060-92-3, C.I.
Basic Yellow 28
RL: TEM (Technical or engineered material use); USES (Uses)
(jet-**printing inks** contg., storage-stable,
antifeathering)

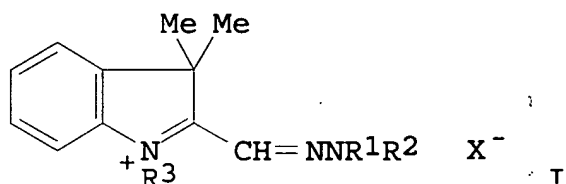
L48 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:538426 HCAPLUS
DOCUMENT NUMBER: 115:138426
TITLE: Oil-based **inks** containing indole dyes
for jet **printing**
INVENTOR(S): Tabayashi, Isao; Inoue, Sadahiro; Yamada,
Yutaka; Amamiya, Shinji
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03079677	A2	19910404	JP 1989-214058	19890822

PRIORITY APPLN. INFO.: JP 1989-214058
 19890822

OTHER SOURCE(S): MARPAT 115:138426
 GI



AB The title **inks** with good storage stability contain indole dyes I [R1 = (un)substituted Ph or naphthyl; R2-3 = C1-4 alkyl; X = anion]. Thus, I (R1 = p-methoxyphenyl; R2 = Me; X = MeSO4) 10, oleic acid 60, and diisopropylnaphthalene 30% were mixed and filtered to give a storage-stable **ink** which was used for jet **printing**, giving light-resistant clear **printing** with stable **ink**-discharging capability during >500 h.

IT 54060-92-3 73718-63-5 136054-59-6
 136054-60-9 136054-62-1

RL: USES (Uses)

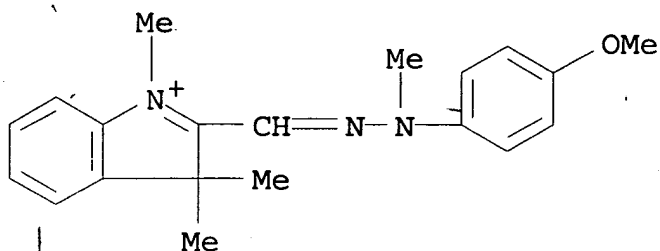
(dyes, jet-printing inks contg., oil-based)

RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8
CMF C20 H24 N3 O

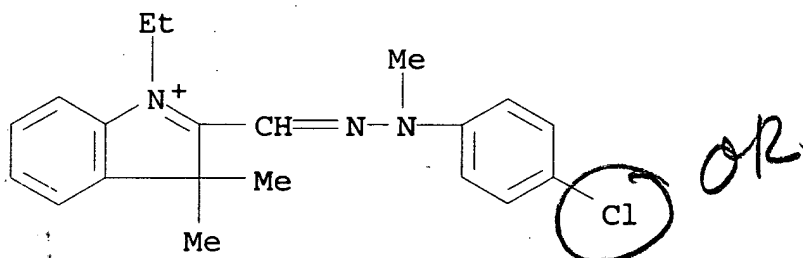


CM - 2

CRN 21228-90-0
CMF C H3 O4 S

Me-O-SO₃⁻

RN 73718-63-5 HCAPLUS
CN 3H-Indolium, 2-[[[(4-chlorophenyl)methyl]hydrazono]methyl]-1-ethyl-3,3-dimethyl-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

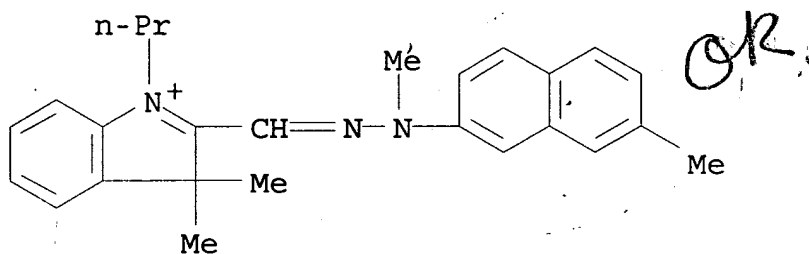
RN 136054-59-6 HCAPLUS
CN 3H-Indolium, 3,3-dimethyl-2-[[methyl(7-methyl-2-

naphthalenyl)hydrazono]methyl]-1-propyl-, acetate (9CI) (CA INDEX NAME)

CM 1

CRN 136054-58-5

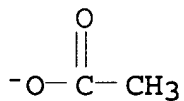
CMF C26 H30 N3



CM 2

CRN 71-50-1

CMF C2 H3 O2



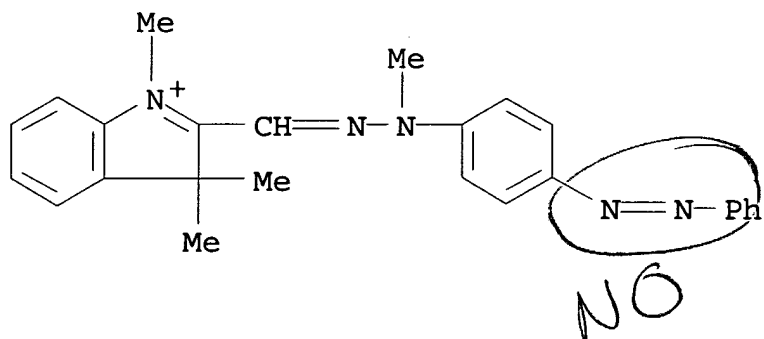
RN 136054-60-9 HCAPLUS

CN 3H-Indolium, 1,3,3-trimethyl-2-[[methyl[4-(phenylazo)phenyl]hydrazono]methyl]-, octadecanoate (9CI) (CA INDEX NAME)

CM 1

CRN 73019-03-1

CMF C25 H26 N5



CM 2

CRN 646-29-7

CMF C18 H35 O2

 $^{-}O_2C-(CH_2)_{16}-Me$

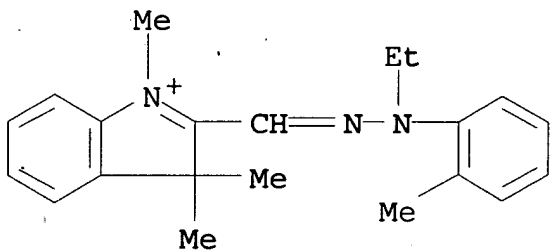
RN 136054-62-1 HCAPLUS

CN 3H-Indolium, 2-[[ethyl(2-methylphenyl)hydrazono]methyl]-1,3,3-trimethyl-, salt with 4-methylbenzenesulfonic acid (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 136054-61-0

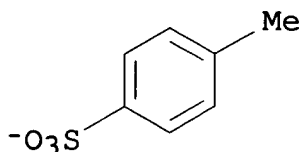
CMF C21 H26 N3



CM 2

CRN 16722-51-3

CMF C7 H7 O3 S



IC ICM C09D011-00
 ICS C09D011-02
 CC 42-12 (Coatings, Inks, and Related Products)
 ST indole dye jet printing ink
 IT Dyes
 (indoles, jet-printing inks contg.,
 oil-based)
 IT Inks
 (jet-printing, oil-based, indole dye-contg., with
 stable discharge properties)
 IT 54060-92-3 73718-63-5 136054-59-6
 136054-60-9 136054-62-1
 RL: USES (Uses)
 (dyes, jet-printing inks contg., oil-based)

L48 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1989:556107 HCAPLUS
 DOCUMENT NUMBER: 111:156107
 TITLE: Ink-jet recording method
 INVENTOR(S): Kuroda, Katsuhiko; Takimoto, Hiroshi
 PATENT ASSIGNEE(S): Mitsubishi Kasei Corp., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01105773	A2	19890424	JP 1987-263564	19871019

198710
19

PRIORITY APPLN. INFO.:

JP 1987-263564

198710

19

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AB An ink contg. acidic dye(s) [and/or direct dye(s)] and an ink contg. basic dye(s) are used in combination, to obtain an overlapped image. Drying rate, quality, and durability of the image are improved by pptn. by mixing. Thus, an ink contg. 2.5% C.I. Food Black 2, diethylene glycol, and urea in water, and another contg. 2.5% C.I. Basic Black 8, N-methylpyrrolidone, and water, were simultaneously used in printing to show the described advantages.

IT 54060-92-3, C.I. Basic Yellow 28

RL: USES (Uses)

(ink contg., for ink-jet printing
using two kinds of inks)

RN 54060-92-3 HCAPLUS

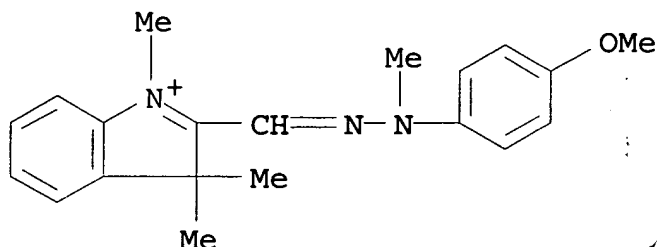
CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O

Azo based



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM B41M001-00

MEI HUANG EIC1700 REM4B28 571-272-3952

03/10/2006

ICS B41J003-04
ICA C09D011-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 74
ST **printing ink** jet overlapped image; acidic basic
ink jet printing
IT **Printing**, nonimpact
(ink-jet, with overlapped image formation)
IT **Inks**
(jet-printing, dyes for, for simultaneous use of two
different for overlapped image)
IT 1328-24-1, C.I. Acid Black 48 1330-38-7, C.I. Direct Blue 86
1934-21-0, C.I. Acid Yellow 23 2118-39-0, C.I. Food Black 2
2610-10-8, C.I. Direct Red 80 4787-93-3, C.I. Acid Red 8
6359-50-8, C.I. Basic Yellow 21 6428-31-5, C.I. Direct Black 19
6428-38-2, C.I. Direct Black 32 6441-93-6, C.I. Acid Red 35
6473-13-8, C.I. Direct Black 22 8005-03-6, C.I. Acid Black 2
12221-28-2, C.I. Basic Black 8 12221-53-3, C.I. Basic Red 27
12221-59-9, C.I. Basic Red 35 12222-00-3, C.I. Direct Blue 80
12222-04-7, C.I. Direct Blue 199 12239-15-5, C.I. Acid Yellow 49
50925-42-3, C.I. Direct Yellow 86 53060-45-0, C.I. Basic Blue 85
54060-92-3, C.I. Basic Yellow 28 56509-57-0, C.I. Basic
Red 68 71872-36-1, C.I. Basic Yellow 70 71902-08-4, C.I. Direct
Yellow 142 122932-86-9, C.I. Basic Blue 109
RL: USES (Uses)
(ink contg., for ink-jet printing
using two kinds of inks)

L48 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:205381 HCAPLUS
DOCUMENT NUMBER: 102:205381
TITLE: Transfer sheets for transfer **printing**
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan; Sakata
Shokai, Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 60005473	B4	19850212	JP 1976-41963	

197604

13

PRIORITY APPLN. INFO.:

JP 1976-41963

197604

13

AB Sublimable ink layers are partially printed with resist inks or color resist inks contg. 100 parts fillers, 10-30 parts binders, and optionally sublimable dyes to prep. transfer sheets. Thus, paper was printed with an ink contg. C.I. Disperse Red 60 [17418-58-5] 10, a 35% (solids) aq. acrylic resin soln. 60, water 20, and iso-PrOH 10 parts and a resist ink contg. CaCO₃ 35, 15% aq. casein 55, and water 10 parts to form a fine-line flower pattern, dried, pressed 30 s at 200° on a polyester plain weave fabric to give a red fabric with a white fine-line flower pattern.

IT 54060-92-3

RL: USES (Uses)

(dyes, for inks for textile transfer printing)

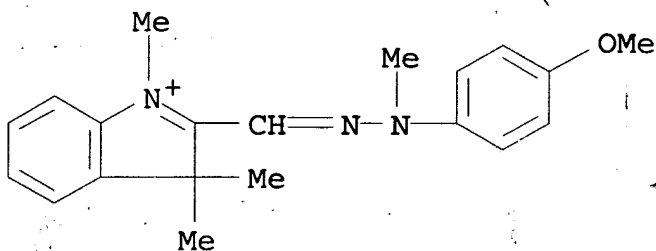
RN 54060-92-3 HCAPLUS

CN 3H-Indolium, 2-[[[(4-methoxyphenyl)methylhydrazono]methyl]-1,3,3-trimethyl-, methyl sulfate (9CI) (CA INDEX NAME)

CM 1

CRN 52757-89-8

CMF C20 H24 N3 O



CM 2

CRN 21228-90-0

CMF C H3 O4 S

Me-O-SO₃⁻

IC ICM B41M005-035
CC 40-6 (Textiles)
Section cross-reference(s): 42
ST resist **ink** transfer textile **printing**; sublimable
dye transfer **ink**; polyester fabric transfer
printing; calcium carbonate resist **ink**
IT Dyes
(sublimable, **inks** contg., for transfers for textile
printing)
IT 17418-58-5 54060-92-3
RL: USES (Uses)
(dyes, for **inks** for textile transfer **printing**
)
IT 12217-79-7
RL: USES (Uses)
(dyes, resist **inks** contg., partially printed
on transfers for textile **printing**)
IT 471-34-1, uses and miscellaneous 7727-43-7 13463-67-7, uses and
miscellaneous
RL: USES (Uses)
(fillers, resist **inks** contg., partially printed
on transfer sheets for textile **printing**)

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